

AMERICAN NURSERYMAN

and The NATIONAL NURSERYMAN

OCTOBER 15, 1939



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Philadelphus Lemoinei Avalanche

Identifying Woody Plants in Winter
Changes in Wages and Hours Regulations
Excerpts from a Plantsman's Notebook
Oregon Association Meets

AMERICAN NURSERYMAN

and The NATIONAL NURSERYMAN

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TWENTY-FIVE YEARS LATER.

Those who seek to forecast trade conditions by comparison with the time, twenty-five years ago, when war was previously declared in Europe, find little basis for parallel in the nursery field. In that earlier day this country was dependent to a large degree upon European sources for the merchandise nurserymen sold to the public. Today, because of the plant quarantine act and quarantine 37, we are dependent upon foreign sources for but a few items of importance.

Only indirectly, in consequence, will the present war conditions affect nurserymen. In this country they will not need to worry about the possibility of being obliged to clear nursery crops off their land, or part of it, in order to produce food, as are their fellows in England today. Ample supply of land and abundant agricultural crops would make that unnecessary here, in any event.

The question then is whether the general business situation will favor purchases of nursery stock. So far, marked stimulation has been felt by those lines of industry which may supply material to some of the warring nations or may replace the exports of those nations to neutral countries. At the present time, the stimulus is provided largely, not by foreign orders, but to replenish low inventories of domestic buyers as a matter of precaution. It is well worth noting that salesmen are not seeking such orders, but are in many cases discouraging the buyers from adding to their inventories if they are at a satisfactory level.

The Mirror of the Trade

The purpose, of course, is to prevent a current stimulation which will result in a consequent reaction like that in the early months of 1938.

If that reaction can be avoided, the domestic outlook is encouraging. The present stimulus is constantly drawing more men off the relief rolls and reducing unemployment. The resulting volume of better wages paid, by increasing the national income, is certain to result in the purchase of nursery stock, as well as other items, especially by those whose reduced incomes have prevented their buying in previous seasons.

Particularly important to nurserymen is the likelihood of increased home building. Already the tendency in that direction is evident, to make up for the shortage occasioned for several years of low housing activity. The latter years of the war a quarter century ago were marked by a steady rise in home building, which continued for some years after the armistice of 1918. In this respect there are signs of a parallel rise, first because of the shortage of homes, and second, because increased employment will add to the number able to move into their own dwellings.

WE HOPE SO.

The congratulatory comments that reached the editor after the announcement in the October 1 issue of the merger of the National Nurseryman with the American Nurseryman were gratifying and encouraging. As the one national medium of nurserymen, this periodical hopes to be of increasing value and service to nurserymen in the north and south, east and west, of all branches of the industry. Among the most pleasing letters received was that from Ernest Hemming, editor of the National Nurseryman for fourteen of its most successful years and now president of the Eastern Shore Nurseries, Inc., Easton, Md., who among other things said: "It was with extreme pleasure I read of the merger of the American Nurseryman and the National Nurseryman in your issue of October 1. I feel sure the trade will have a mouthpiece that will represent its best interests."

PHILADELPHUS LEMOINEI avalanche.

There are so many varieties of philadelphus that it is difficult to make a choice of a few varieties which are outstanding. Philadelphus Lemoinei is one of the smaller of the mock oranges, and because of this smaller, more compact habit, it, with some of its varieties, possesses a more refined habit of growth than characterizes most of the other species of philadelphus.

Many of the varieties of Philadelphus Lemoinei are relatively narrow and upright in their habit of growth. The variety Avalanche, however, possesses a somewhat compact, drooping habit of about five feet in height at maturity. The leaves are small, from about three-fourths of an inch to about one and one-half inches in length, with a few small teeth on each margin. The leaves are slightly hairy on the underside, especially on the veins. The characteristic of the leaves' possessing a few small teeth can often be used as one of the identification points to distinguish the P. Lemoinei species from P. microphyllus, which has small, entire leaves.

The Avalanche mock orange is in flower in late May and early June. The flowers are white, fragrant, single and about one inch in diameter. They are borne abundantly and make an effective show, although they are somewhat smaller than the flowers of many of the other mock oranges.

The mock oranges prefer a well drained soil of alkaline or only slightly acid reaction, being not particular as to the actual soil type. The plants are best when used in full sun, although they are quite satisfactory in partial shade. Propagation is by hardwood or softwood cuttings, rooting occurring easily.

The Avalanche mock orange is one of the best for landscape use. Even though it is not so showy in flower as some of the others, its excellent form, with branches facing the ground, makes it useful in foundation plantings, as a specimen or for facing larger shrubs in the border. It is attractive the year around.

L. C. C.

AMERICAN NURSERYMAN

[Registered U. S. Patent Office]

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

OCTOBER 15, 1939

Identifying Woody Plants in Winter

First in a Series of Articles on the Structural Marks and Characteristics of Cultivated Trees and Shrubs—By Leon Croizat, of the Arnold Arboretum

In this and in the articles that will follow I expect to bring to the attention of the practical plantsman marks and characters that make it possible to recognize and to identify woody plants in winter. Writing with this purpose in view, I shall make it a point to use only plain language. Mother Nature is a skillful artist that builds in her own way, but seldom indulges in truly difficult patterns. Inspected at close range, the organs of a plant that appear to be involved and complicated turn out in most cases to be formed by a combination of simple parts or devices. I shall try my best to point out how simple are the structures that at first glance baffle the student of plants.

If the man in the street were to be asked how a plant can be identified in winter, the chances are that nine times out of ten, he would answer that trees and shrubs carrying no leaves can be recognized only by their bark. The inquirer would probably be told by somebody who knows more about plant life that there is no difficulty in using the bark as a character of winter identification, because a beech, for instance, is quite clearly unlike an oak, since the bark of the former is gray and smooth, that of the latter blackish and coarse.

This is true, no doubt, but the main question is, how far is it true? How am I to explain, for instance, in what way the bark of a willow differs from that of a poplar? Words cannot do this, and much field work is the price to pay by anyone who wishes to learn something that no book can teach. Furthermore, there can be no doubt that many who profess to recognize woody plants by their bark use, without being aware of it, many other characters. It is a safe guess that most of those who with fair accuracy can identify

an ash, let us say, do so not merely because they definitely know in what manner the bark of the ash differs from that of other trees that it resembles. The fact is that they recognize an ash because of its shape, of its general appearance and, ultimately, also because of its bark.

It is altogether possible even for an experienced eye to go wrong, mistaking the bark of a tulip tree (*liriodendron*), for instance, for that of the sweet gum (*liquidambar*). Some may doubt my statement, but I am quite certain that I was myself mistaken a few times. The reason is simple why, aside from what I have already stated, the bark is not always reliable as a character of winter identification. The bark belongs to the tree as if it were in some offhand manner. It is an outer layer of skin that the plant sloughs off because it needs a roomier coat when growing. Like the skin of a snake and the nails and hair of a man, the bark of a tree is constantly being renewed. The number of trees and shrubs that slough off their bark in the same manner is large. I should be much embarrassed in trying to recognize the bark of the yellowwood (*cladrastis*) from that of the beech. Plants that can be definitely recognized by their bark are comparatively few; witness the lacebark pine (*Pinus Bungeana*), the paperbark maple (*Acer griseum*), the paper mulberry (*Broussonetia papyrifera*) and the true *Viburnum molle*.

Regardless of side issues, I believe that we fundamentally recognize and identify trees and shrubs in the same manner as we recognize an old acquaintance. The bark is one of the useful characters for identification, but by no means the only one nor, for that matter, even the best and the safest. To be really proficient, we

must be able to judge without the necessity of seeing the whole plant, using sums of characters of which some at least are sure. To make my point quite clear: There are cases in which it may not be immediately evident whether a certain leafless tree is an ash or tulip tree. The bark, as such, does not settle the issue beyond dispute. There are at least three characters in the tulip tree, however, that are foolproof and never fail. Jab the sapwood with a penknife and smell the wound; if it is a tulip tree the odor will be the same as that of the wood and bruised leaf of the magnolias. Take a look at the end of the twigs and notice how they carry sharp points, the "backbones" of the fruits which sometimes retain a few seeds until the spring. Lastly, press the bud open. It will split in two, showing on the inside, neatly folded, a leaflet that is altogether cut and patterned out like the normal leaf of the tree. Next to this leaflet there will be two more scales, followed by one more leaflet and so on. Clearly, the bud is a whole length of branchlet, stored away for the winter.

These three characters, odor, fruit and bud, not only tell us that we are dealing with a tulip tree. They reveal—and this is vastly more important as general information—that the tulip tree is a member of the magnolia family. The odor, in fact, is the same. The fruit would be the same, too, but for one detail—the cone of the magnolia falls late and entire from the limb; that of the tulip tree shatters, leaving behind only a sharp pointed persistent core. The bud of the tulip tree can be made to open with comparative ease, while that of the magnolia tears rather than splits. This difference in behavior is due to the fact that the scales of the bud of the

tulip tree are "wired" by strong inner veins only on the sides, while those of the bud of magnolia are "wired," in addition, by strands running in front and back. It will be seen that the fruit of magnolia differs from that of the tulip tree as the cone of pine differs from the cone of fir. The "wiring" of the bud of magnolias is done by Mother Nature much as a netting is strung over the cork of a bottle of noble vin mousseux.

I need not spend additional time to insist that the bud is one of the most important characters for winter determination. It is the handiest of all; it retains the peculiar odor of the wood and of the bark, if any, and it often affords excellent clues to the relationship of the plant. There is nothing surprising in all this; unlike the bark, the bud is a live part of the tree, made to protect a live core that must stand successfully the bite of the coldest weather of the year. A structure of this kind cannot be worked out carelessly. There is as much foresight and thought, we may well believe, in the structure of the bud of the tulip tree as there is in the nest of the oriole.

Before going farther, it is pertinent to ask ourselves the question: How is the bud constructed? What is the nature of its scales?

Some well known scientists have studied the bud for years and lavished untold labor on its scales only to admit in the end that they cannot state with certainty what the bud scales are made of. As I am not trying here to write purely as a scientist, I feel free to give my reader my own version of anything that must be discussed without worrying about issues that have little immediate value. Let us see how nature works.

The seedling of a woody plant growing outdoors puts forth leaves, increases in size and height and then, usually before the return of cool weather, caps its stem with a terminal bud. With the first frost the seedling goes to sleep. When the weather becomes mild again, the bud breaks up and the stem once more continues to grow. This process goes on and on. Up to a point it is possible to retrace the growth of each year upon the stem. At the end of each year's growth there are tiny scars left by the bud scales of the terminal bud. The leaf scars also get closer together toward the terminal bud.

The crowding of the leaf scars under the terminal bud is worthy of our

attention. It gives a good clue to the manner in which the bud is formed. Clearly, the growth is faster at the beginning of the season and when the weather is at its best. The growth slows down when the conditions become less favorable or when the seedling, for reasons better known to itself, decides that the time has come to end its annual growth. The bud, as we have seen, speaking of the tulip tree, is a "canned" branchlet. It is not surprising, then, that it should have its leaves like an ordinary branchlet. That is what the bud scales are

—undeveloped leaves that are much crowded together, much more crowded than any of the leaves that grow upon the branchlets. In some sorts of plants the saplings carry all the passages between the true leaf and the bud scale. On the main branches of a young ash, horse chestnut, cork tree (*phellodendron*) and mountain ash (*sorbus*) it is often possible to see structures that are neither buds nor leaves. This is what happens: Instead of growing its full length, the leaf becomes stunted and ultimately shrivels and falls off, leaving behind the foot of the leafstalk to become the bud scale. In some ashes the bud scales are of lighter color along the middle, corresponding to the midrib of the stalk of the leaf that failed to develop normally. The bud scales of these ashes are also abruptly cut short at the tip, the scar marking the spot where the undeveloped leaf separated from the bud scale. So gradual is the transition between leaf and bud scale that it is not always possible to decide where one ends and the other begins except by observing their behavior. A true leaf will develop and later fall entire, leaving a scar flush with the stem or a bud scale will remain, losing only its green, bladelike upper end. That this should happen is perfectly understandable. When the weather is good the bladelike, green part of the leaf uses sunlight and air to manufacture food and it is obvious that the leafstalk is needed only to support the blade and to put it in a convenient position toward the light. When the weather is bad and the plant does not feed, a green blade is useless. A good cover for the live core of the bud is needed and for this purpose the lower thick end of the leafstalk is retained as the bud scale.

From what we have seen one important conclusion may be derived. Leaves and bud scales are funda-

mentally structures of the same kind, the bud scale being a leaf pared down to the very end of the stalk. Obviously, the position of the bud scales and of the leaves on the bud and on the branchlets is the same; that is to say, in plants which have opposite leaves the bud scales will also be opposite. Thus in ashes, dogwoods, viburnums and the like the bud scales face each other and are arranged crosswise. Their disposition is not and cannot be that of the bud scales of oaks, cherries, etc., which have alternate leaves.

In a coming article I shall deal with the practical issue of determining how many kinds of buds and bud scales are to be found in the commonly cultivated woody plants. Later on I shall review these plants, adding for each one characters of barks, persistency of fruit and peculiarities that are useful for determination in conjunction with the bud.

TEXAS ARBORETUM.

The Jeff Davis county courthouse grounds at Fort Davis, Tex., through completion of a \$2,500 landscaping project, provide an arboretum of trees indigenous to the county. The project, carried on by the Works Progress Administration under the sponsorship of the county, included the setting out of twenty-three varieties of native trees, the planting of the entire courtyard in native Bermuda grass, terracing and installation of an underground sprinkling system.

The present collection of 120 trees includes six varieties of oaks; three pines native to the county, western yellow, pinon and limber pine; ash, walnut, cedar, juniper, desert willow, brittle willow, aspen, madrona, wild cherry, wild China tree, hackberry, red haw, sumac and mesquite.

The oaks include two fairly rare specimens, the silver leaf which grows in this country only on Mount Livermore in Jeff Davis county, at one spot in New Mexico and at one place in Arizona, and the chestnut oak, of which there are but a few specimens in the country. In addition to the trees, it is planned to plant about a dozen native shrubs on the grounds next winter. These shrubs will include the evergreen sumac, Apache plume, mountain mahogany, chilicote or so-called mountain laurel, *Tecoma* stans or yellow trumpet flower, leafless althorn, bird-of-paradise acacia and white bush.

Excerpts from a Plantsman's Notebook

*Further Notes on the Culture, Propagation and Uses of Many Kinds
of Plants Given Garden Trial in Years Past—By C. W. Wood*

Dentaria.

(May 11, 1931.) My first experience with the European toothwort, *Dentaria pinnata*, has been a most auspicious one, pointing to a pleasant adventure as more are added to the collection. As I look back on it now the impetus toward dentarias came from Gertrude Jekyll when she wrote in her April notes in *Wood and Garden*: "Dentaria pinnata, a woodland plant of Switzerland and Austria, is one of the handsomest of the white-flowered cruciferæ, with well filled heads of twelve to fifteen flowers and palmate leaves of freshest green." There is a mistake somewhere, however, or else the species varies in color, for all my plants had soft lilac-colored flowers. I am not complaining, however, about this deflection, lilac being always preferable to white in the April and May garden in my sight. Its height of a foot fits it for a cool position in the rockery or for groups in shady situations.

(May 8, 1908.) Our native dentarias seem to be little appreciated in this country, perhaps because they are rather unshowy. Blooming early in the year, they should be among the best loved plants in northern gardens. Two eastern species, *D. diphylla*, so named because it usually has two stem leaves, and *D. laciniata*, I have long admired in their natural haunts and shall plant them generously, as they have been in one garden that I admire, if I ever am blessed with a woodland. They are thought better of in Europe, where they are much used as an underplanting in woodlands—a fact that can be verified by referring to the horticultural literature of the last century in which their praises are sung by numerous writers. The flowers of the first-named are generally white inside, with a purplish reverse, though pure white sometimes occurs and others are so heavily tinted with purple as to assume a lilac shade. The other may be either white or purple.

The frequent nonproduction of seeds by dentaria plants is an interesting problem for the plant student. In the case of *D. diphylla* I have never gathered a pod containing viable seeds; in fact, most pods drop from the

plants long before maturity. Some species—*D. trifolia*, *D. Saviensis*(?) and *D. macrocarpa*, for instance—have produced good seeds in my garden, though they are never plentiful. Whatever the cause may be, it often forces the propagator to resort to vegetative reproduction, which, fortunately, is quite easily accomplished by division of the fleshy roots.

Liriope.

(October 7, 1936.) Liriope is a small genus of the lily family, according to the *Cyclopedia of Horticulture*, being made up of three species in China, Japan and the Philippines. My acquaintance with them is confined to *L. graminifolia*, which I have found too tender for our cold winters, though it has given me much pleasure as a pot plant, producing foot-tall spikes of 6-pointed whitish stars, followed by purplish fruits. It has lately had much publicity in releases from the Missouri Botanical Garden as *L. Muscari*, which is said to be its correct name; there it is used as a ground cover and is known as lily-turf. The authorities there think much of it as a ground cover because of its ease of culture, evergreen nature and distinctive character. It is quite hardy there and is likely candidate for the ground-cover role in sections where it can stand the winters. Liriores may be grown from seeds, when available, though no doubt division furnishes a more ready means of increase.

Melampodium Cinereum.

(October 30, 1937.) There seems always to be an argument in progress among gardeners as to the relative merits of florists' flowers (meaning, I suppose, those which have had the attention of horticulturists in the matter of improvements in size, doubleness, color, etc.) and of species. As a gardener I lean toward the latter, but as a commercial plant grower I am forced by the insistent call for improved forms to follow the other side. It fills me with joy, then, when I find a species like *Melampodium cinereum* which is ready for the most exacting gardener without any attention from the improvers. It is a much-branched plant, growing to a height of six inches

or such a matter, the graceful, wiry stems carrying inch-wide white flowers which remind one of a single zinnia. These are produced continuously from July until frost, not sparingly, as is the habit of many long-time bloomers, but abundantly during the entire period. It was planted this year in a dry, sunny spot, apparently to its enjoyment, for it behaved splendidly.

(August 17, 1939.) Subsequent experience forces me to the conclusion that the so-called Colorado rock daisy mentioned in the preceding paragraph will have to be treated as an annual here in northern Michigan.

Manfreda Virginica.

(May 20, 1937.) I am ready to admit, after several trials, that the so-called hardy agave, *Manfreda virginica*, does not live up to its common name, at least not in northern Michigan. I am also ready to admit that it should be more used in gardens where it is hardy, especially where there are difficult, hot, dry spots to be clothed. There it will furnish large, green rosettes that simulate the aloes of window gardens and in summer produce a loose wandlike raceme of greenish-yellow, delicately fragrant (macelike, some say) flowers on 5-foot stems. It is easily propagated from seeds sown outdoors in autumn.

Erigeron Compositus.

(August 28, 1939.) If I were restricted to one alpine fleabane, I think my choice would fall on *Erigeron compositus*, not only because of its long blooming season, which usually lasts from May until the frosts of autumn, but also for its lovely, much-divided, gray foliage. If the plant never bloomed it would be worth growing for its little, inch-high tufts of silver. I have had the plant a number of times, usually in its white or dirty lavender forms, but lately came into possession of some with inch-wide clear, pale lavender flowers, which open up a new field of beauty in this species. Best of all the admirable traits of this alpine is its ease of culture in eastern gardens. I had some losses in an unwatered planting in the garden during the six weeks of dry weather that plagued

us this summer, but most came through that trying time and the ones in a frame suffered not at all. When it blooms, the plant is not over two inches high, making it fit for the choicest company in the rock garden. It is easily propagated from spring-sown seeds, from division of old stools and from cuttings.

Potentilla Beesii.

(August 28, 1939.) Speaking of silver very foliage recalls the pleasure I had last year from *Potentilla Beesii* and the sense of loss I felt when it did not show up this spring. Its loss does not necessarily mean a lack of hardiness, for one or the combination of a number of factors may have been the cause. Anyway, I mourn the loss of Bees' cinquefoil and its tidy, tiny tufts of silver and its golden flowers. It comes from Tibet, so should be hardy in most sections. If you come across it in seeds or plants, may I urge you to give it a trial?

Lactuca.

(July 21, 1933.) Much to our loss, the ornamental lettuces are seldom used or known in gardens. None that I have grown is spectacularly showy, as some gardeners require their plants to be, but all have the admirable trait of flowering for a long time, and two, at least, have given a good account of themselves in this garden. The most reliable of the two as to hardiness is the southern European, *Lactuca perennis*, a 2-foot-high plant with pale blue, composite flowers from June onward. The other, *L. Bourgei*, is a little less hardy (I lost all my plants in the winter of 1934-35), but even so should be able to stand all except the coldest temperatures, especially if mulched. It is a noble plant, growing to a height of four or five feet, with pale blue flowers in July and August. Both are

good border plants, the former for any sunny well drained spot and the latter for generous planting at the back of the border. They seem to do best in a dry soil in full sun and are propagated from seeds.

Moricandia.

(September 5, 1939.) To advance my education in the genus *Moricandia* I this year added, after a long search, *M. arvensis*, the only species mentioned in the *Cyclopedia of Horticulture*. I have grown three or four others, all of which proved to be biennials with rather brief blooming periods and therefore of limited value to the gardener. Seeds of the present species were planted indoors in early April and were in flower when they were put in the open in June and have continued in uninterrupted production until the present, with prospects of keeping it up until frost. It is true that the lavender cross-flowers are never present in large numbers, but there are always enough on my few plants to give a touch of color and that, combined with the long blooming season, makes it worthy of garden space. The books say it is an annual or biennial—perhaps the former if it is planted soon enough to bloom the first year and no doubt biennial when the seeds germinate later in the year.

Saxifraga Fortunei.

(October 15, 1934.) Note: Readers in the north may skip this paragraph, for it is concerned with a plant that would scarcely be hardy north of Tennessee, but it should interest southern growers. A pot of Fortune's saxifrage has thrown up a 10-inch panicle which is today a sheaf of pure white stars, making a pleasing display and reminding one that it would, because of its late blooming period, make a good garden plant in warmer

parts of the country. Its low tuft of lobed, glossy leaves is also quite ornamental. The plant belongs to the diptera section of *saxifraga*, of which the so-called strawberry geranium, *S. sarmentosa*, is also a member, but it is even less hardy than the latter, at least in material that I have had. It does not, however, resemble *sarmentosa* in any readily apparent manner, being not at all *sarmentose*.

Linosyris Vulgaris.

(September 22, 1933.) *Linosyris vulgaris*, a near relative of the genus *aster*, with which it is combined by some botanists, is a good plant to have around in late summer and autumn, its pale yellow, tansylike heads and sweet perfume adding a pleasing touch to the garden as it sinks to rest. In good soil it may grow as much as eighteen inches high, when it makes an admirable companion for the blues and purples of medium tall Michaelmas daisies or to plant in front of tall varieties. Give it a meager stony soil, and its height of six inches to a foot fits it for the rock garden. It is a native of Europe and Asia, growing naturally in rocky soil and along river banks from the British Isles to the Caucasus mountains, according to the literature. In the garden it adapts itself to any dry, sunny situation and is quite hardy. It is propagated from fall-sown seeds or divisions.

METHYL bromide used at the concentration recommended for Japanese beetle fumigation will not kill nematodes living in swollen roots, reports Dr. P. P. Pirone, after experiments at the New Jersey agricultural experiment station. Tests of this chemical as a soil fumigant, conducted in greenhouses by Dr. C. C. Hamilton, show promise.



Those Attending Field Day of Kansas Association of Nurserymen at Willis Nurseries, Ottawa, Kan., Reported in Last Issue.

Changes in Wages and Hours Regulations

*Minimum Wages and Maximum Hours Change October 24 under Federal Law,
from Which Most Nurserymen's Employees Are Exempt as Agricultural Labor*

Major changes in the wages and hours provisions go into effect October 24, 1939, when the wages and hours law begins its second year of operation. The minimum wage rate, up to forty-two hours in any work week, after that date is 30 cents per hour. Every hour worked in addition to forty-two hours in any work week is to be paid for at time and one-half rate. Of course, these rates do not apply to exempted workers, including agricultural labor.

The changes in the minimum wages and maximum hours are the only changes which the act will undergo in October. It must be understood that the number and kinds of employees under the act today will in no way be changed after October 24. The only difference applies to (a) all employees, irrespective of wages paid, in that the maximum hours worked without overtime will be forty-two and (b) to those particular employees now being paid 25 cents per hour. Payroll records for the latter must show that after October 24 they are receiving at least 30 cents per hour regular time and 45 cents for every hour worked in excess of forty-two.

Employers, whether or not they now pay more than the new 30-cent minimum, should re-examine their employees' working schedules—unless they are exempt—to determine the feasibility of restricting working hours to forty-two hours per week in order to avoid the payment of overtime.

Reducing wage rates to ensure that total payrolls after October 24 do not exceed present total payrolls should be avoided. Such adjustments are illegal and will be regarded by the wages and hours division as clear attempts to evade the provisions of the act. It should be noted that this applies even in the case of those employees receiving wages substantially above the 30-cent minimum. The employer does, however, remain free to reduce the hours of work to the legal maximum of forty-two hours.

A provision of the wages and hours law permits employers having union agreements with duly certified

collective bargaining agents to enter into contracts for 1,000 or 2,000-hour yearly maxima. Such contracts would permit employees to work in busy seasons up to fifty-six hours in any work week (but not to exceed twelve hours in any workday) without the payment of overtime.

Agricultural Exemption.

According to interpretative bulletin 14, prepared in the office of the general counsel of the wage and hour division of the Department of Labor, an employee is exempt in agricultural employment by virtue of section 13(a)(6) only if his work falls within the specific language of the definition of agriculture in section 3(f). This definition reads as follows:

"Agriculture" includes farming in all its branches and among other things includes the cultivation and tillage of the soil, dairy-ing, the production, cultivation, growing and harvesting of any agricultural or horticultural commodities (including commodities defined as agricultural commodities in section 15(g) of the agricultural marketing act, as amended), the raising of livestock, bees, fur-bearing animals or poultry, and any practices (including any forestry or lumbering operations) performed by a farmer or on a farm as an incident to or in conjunction with such farming operations, including preparation for market, delivery to storage or to market or to carriers for transportation to market.

The opinion stated that an employee is exempt if he performs such work, but if he also performs some work which is not exempt, the exemption does not apply to him during that work week. In other words, there can be no segregation within a work week between exempt and non-exempt operations.

Cultivation and tillage of the soil is defined as including all the operations necessary to prepare a suitable seedbed, eliminate competing weed growth and improve the physical condition of the soil.

Harvesting of any agricultural or horticultural commodities is defined as including all operations customarily performed in connection with the removal of the crops by the farmer from their growing position in the field, greenhouse, etc.

Whether crops are grown in green-houses or hotbeds or in the open

field, so long as the commodities are agricultural or horticultural, their production, etc., fall within the ex-emption.

The opinion specifically states that the employees of a nursery who are engaged in the following activities are employed in agriculture:

1. Sowing seeds and otherwise propa-gating fruit, nut, vegetable and ornamental plants or trees, and shrubs, vines and flowers;
2. Handling such plants, etc., from propagating frames to the field;
3. Planting, cultivating, watering, spray-ing, fertilizing, pruning, bracing and feed-ing the growing crop.

The term "practices performed by a farmer as an incident to or in conjunction with such farming opera-tions, including preparation for market, delivery to storage or to market or to carriers for transportation to market," involves many di-verse matters. The opinion is given that it makes no difference whether they are performed on or off the farm if they are performed by a farmer. The line between practices which are incident to or in conjunction with farming operations, and those which are not, is not susceptible of precise definition. The agricultural exemption, however, would seem to include only practices which constitute a subordinate and established part of the farming operations. Factors that would indicate that the practices per-formed by a farmer are thus subor-dinate would be, among other things, that most of the employees engaged in such practices are normally em-ployed also in farming operations upon the farm, and that these prac-tices occupy only a minor portion of the time of the farmer and such em-ployees and do not constitute the farmer's principal business.

Preparation for market is indicated as including handling, wrapping, packag-ing and grading nursery stock.

Office help—secretaries, clerks, bookkeepers, etc.—night watchmen, maintenance workers, engineers, etc., who are employed by a farmer or on a farm in connection with the activi-ties described in the definition of agriculture are held exempt by the opinion.

AMERICAN ASSOCIATION OF NURSERYMEN

RICHARD P. WHITE, EXECUTIVE SECRETARY
636 SOUTHERN BLDG., WASHINGTON, D. C.

NEXT A.A.N. CONVENTION.

The Hotel Pennsylvania has been selected as headquarters for the 1940 convention of the American Association of Nurserymen at New York city, after careful consideration by Charles Hess and his local committee. Accommodations have already been reserved for 825 persons, just in case the attendance reaches that figure. Arrangements are being made for commercial exhibits, and meeting rooms are available across the hall from the exhibit room and general meeting room for affiliated organizations to hold their gatherings.

The dates have been set as July 23 to 26. Affiliated groups will meet July 24, the day before the opening business session of the convention. The local entertainment features

promise to rank with those of preceding conventions. The local committee expects to make this the biggest convention ever, and attendance will be worth while.

ADVERTISING MATS.

As is apparent from the reproductions of three of them herewith, the advertising mats offered to members of the American Association of Nurserymen through the Washington office cover several types of appeal, all of them in the interest of the landscape nurseryman. The copy has a dual appeal in featuring the landscape modernization plan. The advertisements sell two ideas, first, that new homes demand modern plantings, and second, that old plantings should be modernized. The illustrations are especially designed to appeal to both new and old customer groups. They develop vividly in the prospect's mind through idea, illustration and copy how easy and inexpensive it is to have a modern planting.

The thought behind this new and original series of advertising mats is that, while the nurseryman may be selling his share of new customers, he may have overlooked that great group of homeowners who landscaped their homes ten or more years ago and who, consequently, should be ready to buy again.

The criticism of foundation plantings largely dates from the time when the small arbor-vitae, spruce, etc., planted before the front windows grew up to hide the view. Even in instances where landscape practice was good, evergreens, shrubs and trees have become overgrown and out of scale after ten years' time.

As the secretary of the A.A.N. suggests, most of these property owners have the means to buy because they have paid down substantially, or paid off, their mortgages and from the standpoint of credit constitute a better risk than owners of new homes.

The use of these mats will also help stimulate business from among the many builders and buyers of

new homes, which require well chosen plants to complete their modern architectural design.

These mats are supplied for a nominal cost to members of the association for reproduction in the advertising columns of their local newspapers. This is one of the steps taken by the association to meet demands of members engaged in the landscape business to promote their interest and to help them in that most needed phase of the nursery business, the sale of stock of every type—shade trees, fruit trees, evergreens, flowering shrubs, roses and perennials.

BUILDING UP TURN.

In a weekly analysis of economic developments, prepared by the staff of a nationally known organization for distribution through banks to their customers, appeared last week the following paragraph on building:

"One of the most encouraging phases of the business picture is the



THEY LIVE TO BLOOM AGAIN

With the approach of winter, all growing things prepare for their period of rest . . . among them, perennials. Plant them in the fall, so they can fulfill their promise of a colorful season of bloom from early spring to autumn.

We have a large selection from which to choose. Perennials will afford a lovely display of color practically every month in the year. We suggest a visit to our nursery today.

YOUR NAME HERE

NEW HOMES *Demand* MODERN EVERGREENS



*Y*OU wouldn't think of installing a wood burning stove in your new home. Then why plant old-fashioned, out-of-scale, tall growing evergreens to obstruct views from windows and doorways when so many new varieties of low, slower-growing, rich foliated evergreens and shrubs are available for your selection.

Visit our nurseries today and see the fine selection of all the modern new evergreens we have to offer.

YOUR NAME HERE

MEMBER
AMERICAN ASSOCIATION OF NURSERYMEN

MEMBER
AMERICAN ASSOCIATION OF NURSERYMEN

indication that home building has taken a decided and contraseasonal upturn. Recent reports on residential building permits and loan applications to F.H.A. suggest that a new building wave may be in the making. However, definite conclusions on this point must await later figures. Should it develop that the recent figures are not merely a flash in the pan, the effect upon general business would probably be greater than any other single factor in sight, as building impacts directly and powerfully not only a wide range of industries, but employs a vast amount of labor, comparatively."

INTERMENT CONGRESS.

At its recent convention at Cleveland, the American Cemetery Owners' Association adopted a resolution inviting associations in allied fields to hold a conjunctive convention with the other organizations in 1940. Nurserymen are included for their part in making cemetery properties more beautiful. The resolution reads as follows:

Resolved: To promote greater coöperation and constructive endeavor on the part of all interested in the interment and memorial fields, that this association extend a formal invitation to all interests in the allied industries to hold in 1940 a conjunctive, but not joint, convention with the other organizations so invited and accepting the invitation, by delegating their president, secretary and immediate past president or a committee of three to attend a joint meeting with the representatives of the other groups to select the city, hotel and date for holding such conventions, and that all matters of program be handled by each separate organization except as the officers or duly authorized committees of each may decide upon certain joint sessions.

Roy Hatten, Jackson, Mich., executive secretary of the association, further explains as follows:

"This is the beginning of an effort to secure greater coöperation among all of the branches of the interment and memorial industry, which minister to the American family at the time of loss of some of its members. It is felt that the cemetery, mausoleum and cremation interests, as well as the funeral-directing and monumental interests and all others which serve the deceased and his family, including the suppliers of vaults, flowers, etc., and also the nurseryman who participates in the making of cemetery properties more beautiful, could profitably participate in such a congress for the working out

of greater coöperation and more constructive endeavor on the part of all branches of these various industries.

"The procedure as indicated in the resolution would be for all those organizations which desire to meet in such a congress to indicate it, so that a joint meeting of committees could be held and an effort made to agree upon the city and hotel and date for holding the congress, at which time the various annual conventions and meetings of those participating could be held in the regular way."

STATE NURSERIES.

Fifteen million tree seedlings were produced and sold by the two Georgia state nurseries during 1938, according to H. D. Story, Jr., assistant director in charge of nurseries and forestation. This is five times the quantity of seedlings produced the previous year.

The Herty nursery, Albany, Ga., produced 13,000,000 of the seedlings and the nursery at Flowery Branch produced 2,000,000. This was the first crop to be raised by the Flowery Branch nursery.

Plans for increased production in 1939 are being formulated by D. J. Weddell, director of the division of forestry, and Mr. Story. Additional land donated by Dougherty county will be used for increasing production at the Herty nursery, and land donated by the city of Flowery Branch and Hall county will make possible more extensive planting at the Flowery Branch nursery.

Slash pine seedlings are in greatest demand, with black locust and black walnut also being asked for.

W. R. Hine, in charge of coöperative planting for the regional office of the United States forest service, said the large quantity of seedlings produced and sold by Georgia the past year puts the state among the leaders in reforestation of idle lands through planting.

JAP BEETLE PARASITE.

This autumn colonies of two and one-half million nematodes each have been planted three and one-half miles apart over one-fourth of the area of the state of New Jersey, in Hunterdon, Somerset, Middlesex, Union and Mercer counties. As a result of studies at the White Horse Japanese beetle experimental laboratory, operated under the supervision of the New Jersey state department of agriculture, it is hoped that the beetle may be controlled ultimately by means of these artificially grown parasites.

Thus far most plantings have been on golf courses and in public parks, where Japanese beetles annually cause tremendous damage.

The chief concern of laboratory men at present is the parasite's ability to withstand dry seasons. If the nematode survives and is as destructive as hoped, some day the Japanese beetle may be reduced to a place of unimportance in agricultural economics—and nurserymen's worries.

LAWNS that do not need cutting are still in the future. The tufting daisy and S-50 timothy do not make satisfactory turf, reports Dr. H. B. Sprague, New Jersey station agronomist.



FLOWERING SHRUBS Brighten YOUR OUTLOOK

At planting time, the season of new hope, flowering trees and shrubs add much to our happiness. But did you know a wide variety of shrubs may be chosen to give a succession of bloom beginning with the earliest days of Spring, followed by bright cheerful berries which last well into the Winter? Brighten your outlook the year 'round with a wide choice of flowering and berry-bearing shrubs. Plant this fall for the best results next spring. Visit our nurseries today and make your selection. Now is the time to plant!

YOUR NAME HERE

MEMBER AMERICAN ASSOCIATION OF NURSERYMEN

Deciduous Plants for Every Purpose

Lists According to Growth Characteristics, Culture and Uses of Selected Plants Included in "Compiling a New Nursery List" Continued from Preceding Issue—By L. C. Chadwick

II. GROUND COVERS, SHRUBS AND SMALL TREES (GROUPS 2-6)

C. HABIT OF GROWTH

(1) Drooping

Group 3

Deutzia carnea
Hypericum patulum Henryi
Lonicera spinosa Alberti
Symporicarpos Chenaultii

Group 4

Abelia grandiflora
Cotoneaster apiculata
Diervilla sessilifolia
Lonicera thibetica
Spiraea Reevesiana
Symporicarpos vulgaris

Group 5

Cotoneaster divaricata
Cotoneaster hupehensis
Cotoneaster multiflora calocarpa
Cotoneaster racemiflora soongarica
Cotoneaster Zabelii
Forsythia suspensa
Kolkwitzia amabilis
Lonicera Korolkowii
Lonicera syringantha Wolfii
Rosa multiflora
Rosa setigera
Spiraea arguta
Spiraea trichocarpa

Group 6

Caragana arborescens pendula

Cornus florida pendula

Lonicera Maackii podocarpa

(2) Narrow erect

(Note: In some cases only selected plants are narrow erect.)

Group 3

Cytisus scoparius

Group 4

Philadelphus Lemoinei Avalanche

Group 5

Berberis plurifolia erecta

Cornus paniculata

Viburnum dentatum

Group 6

Caragana arborescens

Hibiscus syriacus

Ligustrum vulgare pyramidale

Rhamnus Frangula

(3) Horizontal spreading

Group 2

Cotoneaster himalayacus

Group 3

Cotoneaster adpressa

Cotoneaster horizontalis

Group 4

Azalea Kaempferi

Group 5

Evonymus alatus

Ligustrum Ibla Regelianum

Lonicera Morrowii

Malus Sargentii

Viburnum tomentosum

Group 6

Acer palmatum Ashi-Beni

Cornus alternifolia

Cornus florida

Crataegus coccinea

Symplocos paniculata

Viburnum prunifolium

Viburnum rufidulum

(4) Formal, rounded, regular or symmetrical

Group 2

Evonymus nanus

Group 3

Berberis Thunbergii compacta

Cotoneaster adpressa

Cotoneaster Rogersiana

Cydonia Maulei superba

Deutzia carnea

Hypericum Kalmianum

Hypericum patulum Henryi

Ligustrum vulgare nanum

Physocarpus monogynus

Spiraea Bumalda Anthony Waterer

Viburnum Opulus nanum

Group 4

Abelia grandiflora

Azalea mollis

Caragana Maximowicziana

Cotoneaster apiculata

Lonicera thibetica

Ribes alpinum

Spiraea arguta

Spiraea multiflora

Viburnum Carlesii

Group 5

Berberis Mentorensis

Berberis Thunbergii

Cotoneaster divaricata

Evonymus alatus compactus

Hamamelis vernalis

Malus Sargentii

Prunus tomentosa

Viburnum dilatatum

Viburnum Wrightii

Group 6

Acer palmatum Ashi-Beni

Crataegus coccinea

Malus Arnoldiana

Malus floribunda

Prunus incisa

Symplocos paniculata

D. USE

(1) Foundation planting

(a) Beneath low porches or windows— 3 feet or less (Group 3)

Berberis Thunbergii compacta

Cotoneaster adpressa

Cotoneaster praecox

Cydonia Maulei superba

Deutzia carnea

Hypericum Kalmianum

Hypericum patulum Henryi

Lonicera spinosa Alberti

Physocarpus monogynus

Spiraea Bumalda Anthony Waterer

Viburnum Opulus nanum

(b) Beneath medium-high porches or windows—4 to 5 feet (Group 4)

Abelia grandiflora

Azalea Kaempferi

Azalea mollis

Cotoneaster apiculata

Lonicera thibetica

Philadelphus Lemoinei Avalanche

Spiraea arguta

Viburnum Burkwoodii

Viburnum Carlesii

Hamamelis vernalis
Lonicera fragrantissima
Lonicera Morrowii
Viburnum cassinooides
Viburnum dentatum
Viburnum venosum Canbyi

Group 6

Acer Ginnala
Caragana arborescens
Cornus mas
Cotoneaster foveolata
Crataegus cordata
Evonymus europaeus
Ligustrum vulgare
Lonicera Maackii podocarpa
Rhamnus Chadwicki
Syringa chinensis
Viburnum americanum
Viburnum Lantana
Viburnum prunifolium
Viburnum rufidulum
Viburnum Sieboldii

(b) Shrubs with excellent foliage for background planting

Group 5

Aronia melanocarpa elata
Cornus sanguinea
Cotoneaster Dielsiana
Evonymus alatus
Hamamelis vernalis
Lonicera fragrantissima
Lonicera Morrowii
Viburnum cassinooides
Viburnum tomentosum
Viburnum venosum Canbyi

Group 6

Cornus mas
Cotoneaster foveolata
Evonymus europaeus
Ligustrum vulgare
Rhamnus Chadwicki
Viburnum Lantana
Viburnum prunifolium
Viburnum rufidulum
Viburnum Sieboldii

(c) Accent planting

Group 4

Abelia grandiflora
Azalea Kaempferi
Azalea mollis
Cotoneaster apiculata
Lonicera thibetica
Philadelphus Lemoinei Avalanche
Spiraea arguta
Viburnum Burkwoodii
Viburnum Carlesii

Group 5

Aronia arbutifolia brilliantissima
Cornus alba sibirica
Cotoneaster Dielsiana
Cotoneaster hupensis
Cotoneaster racemiflora soongarica
Evonymus alatus
Kolkwitzia amabilis
Lonicera fragrantissima
Lonicera Korolkowii
Malus Sargentii
Rhododendron mucronulatum
Viburnum cassinooides
Viburnum dilatatum
Viburnum tomentosum
Viburnum tomentosum plicatum
Viburnum venosum Canbyi
Viburnum Wrightii

(2) Border planting

(a) Screen planting to hide objectionable views

Group 5

Cornus paniculata

Cornus sanguinea

Group 6

Acer palmatum Ashi-Beni
Caragana arborescens
Chionanthus virginica
Cornus florida
Cornus florida rubra
Cornus Kousa
Cornus mas
Crataegus cordata
Crataegus Oxyacantha Paulii
Erythronium europaeum
Erythronium Maackii
Erythronium planipes
Erythronium yedoensis
Gordonia latamaha
Kerreuteria paniculata
Laburnum Vossii
Magnolia Soulangeana Lennéi
Magnolia stellata rosea
Malus Arnoldiana
Malus atrosanguinea
Malus Halliana Parkmanii
Malus purpurea Eleyi
Symplocos paniculata
Viburnum Lantana
Viburnum prunifolium
Viburnum rufidulum
Viburnum Sieboldii

(d) Plants for refined lawn groups**Group 4**

Abelia grandiflora
Azalea Kaempferi
Azalea mollis
Callicarpa purpurea
Caragana Maximowicziana
Cotoneaster apiculata
Hydrangea quercifolia
Hypericum prolificum
Lonicera thibetica
Philadelphus Lemoinei Avalanche
Ribes alpinum
Spiraea arguta
Spiraea Reevesiana
Viburnum Burkwoodii
Viburnum Carlesii

Group 5

Aronia arbutifolia brilliantissima
Aronia melanocarpa elata
Cornus paniculata
Cornus sanguinea
Cotoneaster Dielsiana
Cotoneaster hupenhensis
Cotoneaster racemiflora soongarica
Cydonia japonica
Deutzia Lemoinei Boule de Neige
Erythronium alatus
Forsythia intermedia spectabilis
Hamamelis vernalis
Kolkwitzia amabilis
Lonicera fragrantissima
Lonicera Morrowi
Malus Sargentii
Philadelphus virginialis Argentine
Rhodotypos kerrioides
Viburnum cassinoides
Viburnum dilatatum
Viburnum tomentosum
Viburnum venosum Canbyi
Viburnum Wrightii

Group 6

Amelanchier grandiflora rubescens
Cornus mas
Cotoneaster foveolata
Erythronium europaeus
Erythronium Maackii
Erythronium planipes
Erythronium yedoensis
Exochorda Giraldii Wilsonii

Magnolia stellata rosea

Malus Arnoldiana
Malus atrosanguinea
Malus Halliana Parkmanii
Malus purpurea Eleyi
Symplocos paniculata
Viburnum Lantana
Viburnum prunifolium
Viburnum rufidulum
Viburnum Sieboldii

(3) Masses of native shrubs**Group 2**

Erythronium obovatum
Hypericum Buckleii
Rubus hispida
Vaccinium pensylvanicum
Zanthorhiza apifolia

Group 3

Aronia melanocarpa
Ceanothus americanus
Hypericum Kalmianum
Potentilla fruticosa
Rosa nitida
Vaccinium vacillans

Group 4

Amelanchier humilis
Calycanthus floridus
Cephalanthus occidentalis
Comptonia asplenifolia
Daphne Mezereum
Dierville sessilifolia
Hydrangea arborescens
Hypericum prolificum
Itea virginica
Neviusia alabamensis
Rhus canadensis
Rosa lucida
Symporicarpus racemosus
Symporicarpus vulgaris
Viburnum acerifolium

Group 5

Amelanchier amabilis
Aronia arbutifolia
Azalea calendulacea
Azalea nudiflora
Azalea rosea
Clethra alnifolia
Cornus paniculata
Fothergilla monticola
Ilex laevigata
Ilex verticillata
Myrica caroliniana

Group 6

Aesculus parviflora
Amelanchier laevis
Baccharis halimifolia
Benzoin aestivale
Cercis canadensis
Chionanthus virginica
Cornus alternifolia
Cornus florida
Cornus florida rubra
Cornus florida flava
Erythronium americanus
Erythronium atropurpureus
Halesia carolina
Hamamelis virginiana
Leitneria floridana
Leucothoe racemosa
Magnolia glauca
Oxydendron arboreum
Rhus copallina
Rhus typhina
Vaccinium corymbosum
Viburnum Lantana
Viburnum Lentago
Viburnum prunifolium
Viburnum rufidulum

(4) Hedges

(a) Low, sheared—2 ft. or less
Berberis Mentoriensis
Berberis plurifolia erecta
Berberis Thunbergii compacta
Caragana Maximowicziana
Cotoneaster apiculata

Cydonia Maulei superba

Ligustrum Ibolium
Physocarpus monogynus
Ribes alpinum
Spiraea arguta
Spiraea Bumalda Anthony Waterer
Viburnum Opulus nanum

(b) Low, unsheared

Berberis Thunbergii compacta
Viburnum Opulus nanum

(c) High, sheared (See also Screens)

Group 4
Abelia grandiflora
Caragana Maximowicziana

Group 5
Acanthopanax pentaphylla
Cornus paniculata
Cornus sanguinea
Cotoneaster Dielsiana
Erythronium alatum compactus
Ligustrum Ibeta Regelianum
Lonicera fragrantissima
Lonicera Korolkowii
Lonicera Morrowi
Prunus tomentosa
Rhodotypos kerrioides
Viburnum dentatum
Viburnum tomentosum
Viburnum venosum Canbyi

Group 6

Caragana arborescens
Cornus mas
Cotoneaster foveolata
Cotoneaster lucida
Crataegus cordata
Erythronium europaeus
Ligustrum amurense
Ligustrum Ibolium
Ligustrum vulgare
Rhamnus Chadwicki
Rhamnus Frangula
Viburnum Lantana
Viburnum prunifolium
Viburnum rufidulum
Viburnum Sieboldii
Syringa chinensis
Syringa Josikæa

(d) High, unsheared

Cornus paniculata
Cercidiphyllum japonicum
Erythronium europaeus
Hibiscus syriacus
Ligustrum vulgare
Viburnum dentatum

(e) Thorny

Acanthopanax pentaphylla
Berberis Mentoriensis
Berberis plurifolia erecta
Berberis Thunbergii compacta
Crataegus cordata
Cydonia Maulei superba
Prunsepia uniflora
Rhamnus Chadwicki

(f) Shade enduring

All types mentioned above (a, b, c, d, e)
will stand shade.
Following not so satisfactory as others:
Cotoneaster apiculata, *Dielsiana*, *foveolata* and *lucida*.

(g) Withstanding poor growing conditions

Acanthopanax pentaphylla
Caragana arborescens
Caragana Maximowicziana
Cornus sanguinea
Cydonia Maulei superba
Ligustrum amurense
Ligustrum Ibolium
Ligustrum vulgare
Lonicera Morrowi
Physocarpus monogynus
Rhamnus Chadwicki
Ribes alpinum

D. USE (4) Hedges—Continued**(h) Hedges with colored fruit**

Berberis plurifolia erecta
Cornus paniculata
Cornus sanguinea
Cotoneaster apiculata
Cotoneaster Dielsiana
Cotoneaster foveolata
Cotoneaster lucida
Crataegus cordata
Evonymus europaeus
Ligustrum amurense
Ligustrum Ibotka Regelianum
Ligustrum vulgare
Prunus uniflora
Rhamnus Chadwicki
Rhodotypos kerrioides
Viburnum dentatum
Viburnum Lantana
Viburnum prunifolium
Viburnum rufidulum

(i) Hedges with colored foliage

Berberis Thunbergii atropurpurea—red
Cornus mas elegantissima—green, white
 margin
Elaeagnus angustifolia—silvery
Ligustrum ovalifolium variegatum—pale
 yellow
Ligustrum vulgare aureum—yellow
Ligustrum vulgare aureovariegatum—
 blotted yellow
Prunus cistena—purple

(j) Hedges with conspicuous bark in winter

Cornus alba sibirica
Cornus sanguinea
Cornus stolonifera
Cornus stolonifera flaviramea
Evonymus europaeus

(k) Flowering hedges

Group 3
Deutzia carnea
Spiraea Bumalda Anthony Waterer

Group 4

Abelia grandiflora
Cydonia Malus superba
Prunsepia uniflora
Spiraea arguta

Group 5

Deutzia Lemoinei
Cornus paniculata
Forsythia intermedia
Lonicera fragrantissima
Philadelphus Lemoinei
Rhodotypos kerrioides

Group 6

Caragana arborescens
Crataegus cordata
Hibiscus syriacus
Lonicera tatarica
Syringa Josikaea
Viburnum dentatum

(l) Edging of walks

Berberis Thunbergii compacta
Berberis plurifolia erecta
Ligustrum vulgare nanum
Viburnum Opulus nanum

(5) Rock gardens**Group 2**

Cotoneaster himalayacu
Evonymus nanus
Hypericum Buckleii
Vaccinium pensylvanicum

Group 3

Berberis Thunbergii compacta
Cotoneaster adpressa
Cotoneaster præcox
Hypericum patulum Henryi
Lonicera spinosa Alberti
Viburnum Opulus nanum

Group 4

Abelia grandiflora
Azalea mollis
Daphne Mezereum

Cotoneaster apiculata
Lonicera thibetica
Spiraea arguta
Viburnum Carlesii

(6) Spreading types for covering banks and rough places**Group 1**

Akebia quinata
Amelopopsis quinquefolia Engelmannii
Amelopopsis tricuspidata Lowii
Lonicera Henryi
Lonicera japonica Halliana

Group 2

Evonymus obovatus
Lonicera japonica Halliana
Rosa Max Graf
Rosa Wichuraiana
Rubus hispida
Zanthorhiza apifolia

Group 3

Lonicera spinosa Alberti
Potentilla fruticosa
Symporicarpos Chenaultii

Group 4

Dierville sessilifolia
Rhus canadensis
Rosa lucida
Symporicarpos racemosus laevigatus
Symporicarpos vulgaris

Group 5

Acanthopanax pentaphylla
Cornus alba sibirica
Cornus stolonifera flaviramea
Forsythia suspensa
Lonicera Korolkowii
Lonicera tatarica rosea
Lonicera syringantha Wolfii
Myrica carolinensis
Prunus pumila
Rhodotypos kerrioides
Rosa multiflora

Group 6

Leitneria floridana
Lonicera Maacki podocarpa
Rhus typhina
Salix incana

(7) Plants for shady conditions beneath trees and north side of buildings**(a) Tolerate shade and dry soil conditions**

Group 3
Physocarpus monogynus
Symporicarpos Chenaultii

Group 4

Caragana Maximowicziana
Dierville sessilifolia
Ribes alpinum
Symporicarpos vulgaris

Group 5

Acanthopanax pentaphylla
Cornus paniculata
Cornus sanguinea
Rhodotypos kerrioides

Group 6

Caragana arborescens

Rhamnus Chadwicki

(b) Tolerate shade and wet soil

Group 4
Cephaelanthus occidentalis
Itea virginica

Group 5

Clethra alnifolia Michauxi
Cornus alba sibirica
Cornus sanguinea
Ilex verticillata
Viburnum cassinoides
Viburnum dentatum
Viburnum venosum Canbyi

Group 6

Æsculus parviflora
Benzoin aestivale
Vaccinium corymbosum

(c) Tolerate shade and normal soil conditions (Also includes those in (a) and (b) above)

Group 3

Viburnum Opulus nanum

Group 4

Abelia grandiflora
Amelanchier humilis
Spiraea arguta
Stephanandra flexuosa
Symporicarpos racemosus laevigatus
Viburnum acerifolium

Group 5

Aronia melanocarpa elata
Evonymus alatus
Forsythia suspensa
Hamamelis vernalis
Ligustrum Ibotka Regelianum
Lonicera fragrantissima
Lonicera Morrowi
Viburnum tomentosum

Group 6

Acer Ginnala
Amelanchier laevis
Cercidiphyllum japonicum
Cornus alternifolia
Cornus mas
Cornus florida
Evonymus europaeus
Evonymus yedoensis
Hamamelis mollis
Hamamelis virginiana
Ligustrum amurense
Ligustrum Ibolium
Ligustrum vulgare
Lonicera Maacki podocarpa
Magnolia glauca
Viburnum americanum
Viburnum Lantana
Viburnum Lentago
Viburnum prunifolium
Viburnum rufidulum
Viburnum Sieboldii

(8) Full sun, will not do well in shade**Group 2**

Cotoneaster himalayacu
Rosa Max Graf
Rosa Wichuraiana

Group 3

Amorpha canescens
Cotoneaster adpressa
Cotoneaster præcox
Cytisus scoparius
Deutzia carnea
Deutzia gracilis
Hypericum Kalmianum
Hypericum patulum Henryi
Indigofera Kirilowii

Group 4

Azalea mollis
Callicarpa purpurea
Hypericum proliferum
Philadelphus Lemoinei Avalanche
Rosa lucida
Viburnum Carlesii

Group 5

Cotoneaster Dielsiana
Cotoneaster hupehensis
Cotoneaster racemiflora soongarica
Deutzia Lemoinei Boule de Neige
Philadelphus virginalis Argentine
Rhododendron mucronulatum
Viburnum dilatatum
Viburnum Wrightii
Vitex macrophylla

Group 6

Cotoneaster foveolata
Exochorda Giraldii Wilsonii
Syringa chinensis
Syringa Henryi Lutèce
Syringa japonica
Syringa vulgaris

[Continued in next issue.]

Oregon Association Meets

Reviews of Trade Conditions, Committee Activities and Work at State Experiment Station Feature Annual Meeting—By Reba Ruth Greenman

About fifty nurserymen gathered at the Heathman hotel, October 11, for the annual fall meeting of the Oregon Association of Nurserymen, when business was transacted and problems of the nurserymen were discussed.

The following officers were elected for the coming year: President, Fred J. Borsch; vice-president, Wayne E. McGill; secretary, J. E. French; treasurer, A. M. Doerner; assistant treasurer, Ray Simpson.

The morning session was given over to the reports of officers, committees and advisory board members.

Highlights of the afternoon session included a presentation of the work being done at the Oregon experiment station, at Corvallis, by some of the staff there, headed by Dean W. A. Schoenfeld; a descriptive account of his recent trip to Europe by J. G. Bacher, of the Swiss Floral Co., and a talk by Frank McKennon, chief of the division of plant industry of the state department of agriculture.

Upon the call to order by President C. Bert Miller, Secretary J. E. French read the minutes of the spring meeting, at Corvallis.

The group felt well pleased with the report given by Treasurer A. M. Doerner. He reported that the increase in paid memberships was about thirty-two during the past year, which he felt was due partly to a better understanding on the part of the nurserymen as to the need of a state association.

Committee Reports.

The report of the legislation committee, given by Fred J. Borsch, indicated that the members had been quite active during the past year. They were successful in obtaining the needed appropriations for research and experimental work being done by the experiment station at Oregon State College.

Paul E. Doty, chairman of the transportation committee, reported that although the committee had not had an opportunity to function, there was one matter of particular concern to interstate shippers. That was the notice recently given to certain west-

ern shippers that carloads could only be sent with charges collect when the shipper was under suitable bond to the carrier. The shipper may either provide bond to the carrier or may dispense with the bond and supply a guarantee signed by two responsible parties acceptable to the carrier. One bond will not cover shipments over all lines, but a separate bond must be filed with each road over which shipments are to be made.

In his annual report, Secretary J. E. French reviewed the work of the association and some of the accomplishments of the past year.

A report on the Pacific Coast Association of Nurserymen by J. Frank Schmidt stated that at a short meeting during the national convention at Portland in July all officers were re-elected for another year.

Wayne E. McGill, chairman of the quarantine committee, reported that nothing had been done since the meeting in January. The bill revising the federal plant quarantine act, introduced during the preceding session of Congress, is still unpassed. Some intensive work should be done in this regard in the future, he said.

Work of A. A. N.

Avery H. Steinmetz, vice-president of the American Association of Nurserymen, made a report on its recent activities. He stated that six subjects are to the fore at present, namely, market development, federal and state competition, trade barriers, freight and express rates, membership and the New York convention in 1940.

Under market development Mr. Steinmetz called attention to the advertising mats that are available at the Washington office. He said that this publicity and advertising campaign is one of the most important jobs that the association is working on at this time.

On the matter of federal and state competition he read the statement of policy adopted at the Portland convention and gave a few highlights from a brief in this regard prepared by Richard P. White and Harlan P. Kelsey. This brief will be placed in the hands of each member of the

House of Representatives and the Senate. This brief contains an amazing amount of information and states clearly the feeling of the nurserymen toward the production of nursery stock by the federal government. State competition is likewise important, and Mr. Steinmetz called attention to this.

Trade barriers and freight and express rates were discussed briefly by Mr. Steinmetz, and also membership. The greatest increase in membership has been in region 6.

The 1940 convention in New York looms ahead, and already the arrangements committee is enthusiastically planning for this event, according to Mr. Steinmetz. He mentioned a few of the features being planned.

Bureau of Nursery Service.

Report of the bureau of nursery service was given by John S. Wieman, superintendent. Said Mr. Wieman, "The department of agriculture and the bureau of nursery service are vitally interested in your success as nurserymen." There are three full-time county men doing nursery service work, in Multnomah, Clackamas and Lane counties. In other counties either the county agent or the assistant county agent acts in the enforcement of the nursery law. There is a close relation between quarantine procedure and the nursery industry, and consequently Mr. Wieman has put in considerable time on the narcissus quarantine problems, federal quarantine 37 and others. Also grades and standards on nursery stock are given increasing consideration by the nursery service personnel. He urged the nurserymen to call on the bureau of nursery service for any help they needed.

Reports on Trade Conditions.

Reports by members of the advisory board covered current stock conditions.

Paul Doty, in reporting on ornamentals and landscaping, stated that this stock will come nearer to meeting the demand this year than last. The landscape situation is about the same as last year, with an increasing interest for the coming season.

Knight Pearcy reported an increased interest in filbert orchards and an ex-

cellent outlook for the year. He also reported on the walnut situation.

Alpines and perennials, reported Fred J. Borsch, have a demand somewhat below that of last season; stocks are also much shorter. There seems to be a great demand for some items. Mr. Borsch warned nurserymen to inspect carefully all perennial stock bought.

In his report on berries, H. C. Compton referred only to the leading commercial varieties. Strawberries are the leader from the standpoint of tonnage produced and general demand, and raspberries are next. He also commented on the boysenberry, which is finding favor.

Roses were reported on by E. Dering, who feels that the next two years will be good rose years. Mr. Dering brought up the matter of the criticism given the Portland test gardens during the national convention and reported that the city had appropriated \$5,000 additional and the W. P. A. had appropriated \$30,000 entirely to rebuild the test gardens and make them really worthwhile.

Representing the fruit tree division, Avery Steinmetz gave a thorough report of this branch of the industry.

Arthur Bowman reported on narcissus and lily bulbs and irises. The lifting of the quarantine on narcissus bulbs has made a notable difference in store trade.

Wayne McGill reported on seedlings, expressing his belief that the war situation will affect the seedling business. He called attention to the need of a method of defoliation on seedlings, especially apples and pears. Study is being given this at the experiment station at Oregon State College.

Because of the absence of L. E. Weeks, no report was given on gladiolus and tulip bulbs.

In the florists' (greenhouse) division, George Teufel said that business was expected to pick up. The holly crop looks good for the coming year.

A group luncheon was served at noon, and honor was paid to A. McGill and M. McDonald, the two oldest members of the organization and charter members of the old Pacific Coast association.

Afternoon Session.

After being called to order by President Miller, the afternoon meeting was turned over to Dean W. A. Schoenfeld, of Oregon State College.

Dean Schoenfeld expressed the desire of the college to work for and with the nurserymen in helping them solve their problems. It would be expensive and results would probably be disastrous for one individual to carry on these experiments alone. Thus the need for an experimental station to coöperate with growers, producers and distributors and help solve these problems.

Dean Schoenfeld then called on various members of the staff to discuss the work being done at the college.

Henry Hartman, horticulturist, told of the work done during the past two years on the defoliation of roses. The staff now feels that when proper conditions are provided they can bring about a successful defoliation by the use of ethylene gas. The room must be practically airtight, have a constant temperature of 65 to 70 degrees and maintain a high humidity. He also told of the need of some method for the defoliation of seedlings. This same process of ethylene gas will accomplish this, but a great many calluses and scars develop, which give the plants an unfavorable appearance, although otherwise it does not seem to affect them. The staff plans to do more work along this line.

A little work was done during the past year on balled nursery stock. The staff observed that stock balled in the fall of the year, when planted alongside stock balled in the spring, would make better growth than the latter. This might not hold true in other sections, but in the Willamette valley there is a great development of roots

in the winter months. When the stock is balled in the spring, these newly developed roots are cut off.

Mr. Hartman reported that the staff is also doing much work on maturity of nursery stock. They believe the matter of successful storage of nursery stock over any period of time is largely a matter of maturity.

They have also done experimental work on the time of digging of nursery stock and the use of growth-promoting substances. Said Mr. Hartman, "We feel that those substances do have a place in our propagation program. We are able to cut down the time it takes to root cuttings by the use of this substance." They are also doing some work on gladiolus bulbs.

Don M. Edwards, entomologist, reported on his phase of work at the college. Different insect pests were discussed, and the method of control was given if it had been found.

Dr. John A. Milbrath, pathologist, also spoke briefly and told of the experiments being carried on.

During these reports by the staff, opportunity was given for discussion and questions by the nurserymen.

In closing, Dean Schoenfeld expressed his appreciation for the splendid coöperation the staff was receiving from the state department of agriculture and from the nurserymen.

Leo Spitzbart, assistant director of the Oregon state fair, was present and talked for a few moments about the plantings at the state fair grounds.

Frank McKennon, chief of the division of plant industry, reported that

[Concluded on page 24.]



Two Views of Greening's Branch Storage Buildings at Benton Harbor.

OREGON A. A. N. CHAPTER.

After the meeting of the Oregon Association of Nurserymen, October 11, the Oregon chapter of the American Association of Nurserymen met for a short while.

After the reading of the minutes, Avery H. Steinmetz, vice-president of the American Association of Nurserymen, brought up the matter of market development and the publicity campaign. Suggestion was made that some capable person be employed to write various articles that Oregon nurserymen would like to have used in this A. A. N. campaign. These would be printed in numerous newspapers throughout the country. A motion was made and carried that the chair be empowered to pass this suggestion on to the Oregon Association of Nurserymen with a request that the publicity committee of that organization take immediate steps to put this into effect, and to request that, if possible, the Oregon Association of Nurserymen should make some contribution for the carrying on of this campaign by the national association.

A short report was given by E. Dering on the convention held in July. He reported that the arrangements committee had a surplus of \$430 and asked for suggestions as to the disposal of this money. Several suggestions were made, but it was decided not to make a final decision until the next meeting, in January.

BRANCH AT BENTON HARBOR.

Extending its sales in the Benton Harbor section from fruit trees to include also ornamentals, particularly evergreens and roses, the Greening Nursery Co., Monroe, Mich., last autumn and winter built a branch storage building three miles east of Benton Harbor, on what is known as cut-off 139, a road built by the state to avoid the traffic of the twin cities of St. Joseph and Benton Harbor in carrying resort traffic from Illinois and Indiana into Michigan.

The storage building is 50x100 feet and constructed of cinder block. An office building is connected to and projects twenty-five feet from the storage building. Both are of Dutch colonial style, as shown in the illustrations on the opposite page.

Lloyd E. McKee, who has been the company's representative in that section for some years, is in charge of the sales and operations at the branch.

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FALL PRICE LIST NO. 2

Just out!

offering attractive prices on quality-grown nursery stock.

We advise you to take advantage of these special prices by placing orders now for your requirements and avoid higher prices which are bound to come due to increased operating cost.

Orders booked now can be shipped anytime during Fall 1939 or Spring 1940.

Both finished and lining-out stock in

HARDY ORNAMENTAL FLOWERING SHRUBS

HEDGE PLANTS, BARBERRY THUNBERGII and PRIVET—Amoor River North, California, Ibota, Ibolium and Amoor River South, all grades.

ORNAMENTAL and SHADE TREES**EVERGREENS, assorted**

VINES and CREEPERS, assorted; an especially nice lot of *Celastrus scandens* and *orbiculatus*, *Honeysuckle Hall's Japanese* and *Semprevirens*, 1 and 2 years.

Will quote delivered prices on Truck or Carload lots.

Send want list for special quotations.

Visit our nursery and see the stock.

PEACH SEEDS**1938 or 1939 crop**

TENNESSEE NATURAL SEEDLING PEACH SEEDS
 1 to 9 bushels..... \$2.80 per bushel
 10 to 24 bushels..... 2.70 per bushel
 25 to 49 bushels..... 2.60 per bushel
 50 bushels and up..... 2.50 per bushel
 All Peach Seeds sold subject to approval of samples, which will be sent on request or on receipt of order.

We have about 400 bushels of 1938 large budded Peach Seeds at these special prices to move them.

1 to 9 bushels.....	90c per bushel
10 to 24 bushels.....	80c per bushel
25 to 49 bushels.....	70c per bushel
50 to 99 bushels.....	60c per bushel
100 bushels and up.....	50c per bushel

These seeds have been water tested and all faulty seeds floated out.

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J. R. Boyd
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ROSE SOCIETY MEETS.

Dr. Louis M. Massey, of the department of plant pathology of Cornell University, was elected president of the American Rose Society for the coming year at the annual business meeting of the organization, October 6, at the Brooklyn Botanic Garden.

Other officers elected were Dr. L. C. Fischer, Atlanta, vice-president; Samuel S. Pennock, Philadelphia, treasurer, and R. Marion Hatton, Harrisburg, Pa., secretary. Four trustees elected for a 3-year term were Robert Simpson, Clifton, N. J.; M. H. Horvath, Mentor, O.; Mrs. Ralph Orwig, Des Moines, Ia., and J. D. Crump, Macon, Ga.

The Hubbard gold medal, which is given every five years for the best American garden rose disseminated within that period, was awarded to the E. G. Hill Co., Richmond, Ind., for the rose, Sterling, which has become one of the best clear pink garden roses of today.

It was voted to hold the spring meeting in 1940 in California, the meeting to be divided up between the various rose societies in the state. The annual meeting in 1940 is to be held in Oklahoma, the time and place to be decided by the Oklahoma Rose Society later.

After a buffet luncheon at the botanic garden, the visitors went on a tour of noted gardens on Long Island. They inspected the Hicks Nurseries, Westbury, and the gardens of Mrs. Charles Doscher and the Marshall Field estate, at Huntington.

One hundred and twenty-five members of the society attended the opening session at the St. George hotel, October 5, and toured the rose garden of the Brooklyn Botanic Garden in the afternoon. S. R. Tilley, in charge of rose cultivation at the garden, discussed the effects of weather on cultivation and described methods of growing found to be effective at the garden.

The round-table discussion was led by E. L. D. Seymour, horticultural editor of the American Home. Participants in the discussion included M. H. Horvath, Mentor, O.; Mrs. Harriet R. Foote, Marblehead, Mass.; Professor R. C. Allen and Dr. Massey, of Cornell University; Mr. and Mrs. Frank Ross, Nashville, Tenn., and Dr.

Cynthia Westcott, Glen Ridge, N. J.

The Brooklyn Botanic Garden contains 400 different varieties of roses. Dr. C. Stuart Gager, director of the garden, welcomed the members of the society in the administration building after the tour.

B. J.

RED ROSE RENT FESTIVAL.

The annual red rose rent festival was held October 4 at historic Red Rose Inn, on the property of Conard-Pyle Co., near West Grove, Pa. The speakers' platform, presided over by Robert Pyle, president of the company, overlooked fields of roses in fall bloom.

A crowd of several hundred listened to the chief address "Why Roses in a World at War?" by Richardson Wright, editor of House and Garden.

Others who had an active part in the program were Richard L. Ruffner, mayor of Alexandria, Va.; Dr. T. Allen Kirk, Roanoke, Va., president of the American Rose Society, for whom a new rose was named; Mrs. E. Page Allinson, West Chester, Pa., president of the Pennsylvania Federation of Women's Garden Clubs; J. Carroll Hayes, representing the Chester County Historical Society; State Senator George B. Scarlett, Kennett Square, Pa., and Philip Penn-Gaskell Hall, Jr., Moylan, Pa., descendant of William Penn.

The festival is of historical significance. The tract upon which the Red Rose Inn stands is part of the original grant of land in Pennsylvania to

William Penn. In one of the later transfers, some two centuries ago, the stated rental terms were one red rose, payable yearly "when demanded."

The ninth-generation descendant of William Penn "demanded" the rent of one red rose from State Senator George B. Scarlett, who acted for the



J. Horace McFarland.

present owner of the inn, the Conard-Pyle Co., and "paid" with a choice red rose.

In a colorful pageant which introduced the afternoon's program, a tiny tot from a near-by kindergarten was crowned "star rose princess" by Richard L. Ruffner, mayor of Alexandria, Va. She then christened a new tiny

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SHADE TREES

	Per 10	Per 100	
Ash, American	\$10.00	\$90.00	
10 to 12 ft.	15.00	140.00	
2 to 2½-in. cal.	20.00	185.00	
Elm, American	6.50	60.00	
10 to 12 ft.	12.50	115.00	
2 to 2½-in. cal.	20.00	175.00	
Elm, Chinese	10 to 10 ft.	10.00	95.00
10 to 12 ft.	12.50	115.00	
Maple, Norway	10 to 12 ft.	10.00	90.00
1½ to 2-in. cal.	12.50	115.00	
2 to 2½-in. cal.	17.50	165.00	
2½ to 3-in. cal.	22.50	200.00	
3 to 3½-in. cal.	30.00	275.00	
Oak, Pin	1½ to 2-in. cal.	16.50	150.00
2 to 2½-in. cal.	20.00	185.00	
2½ to 3-in. cal.	30.00	275.00	
Poplar, Lombardy	5 to 6 ft.	1.80	16.00
6 to 8 ft.	2.00	18.00	
8 to 10 ft.	3.00	22.50	
10 to 12 ft.	4.50	35.00	
Willow, Weeping	6 to 8 ft.	6.00	50.00
8 to 10 ft.	8.50	75.00	

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Arbor-vite, Globe, 12-15-18-24 ins.	\$0.40
American, 2-3 ft.	.40
Pyramidalis, 3 ft.	.90
Berkman's Golden, 15-18 ins.	.50
Elegansissima, 3 ft.	.65
George Peabody, 3-ft.	.75
Hemlock, 18-24 ins.	.50
Hemlock, 2-3 ft.	.65
Hemlock, 3 ft.	1.00
Reticulata plomosa, 2-3 ft.	.40
Plomosa, 3-4 ft.	.50
Plomosa aurea, 18-24 ins.	.65
Juniper, stricta, 15-18-24 ins.	.40
Stricta, 30 ins.	.50
Fitzgeraldiana, 18-24 ins.	.90
Irish, 24-30 ins.	.50
Meyers, 18-24 ins.	.90
Taxus capitata, 15-18 ins.	.40
Capitata, 18-24 ins.	.65
Cuspidata, 15-18 ins.	.65
Rhododendron, 2-3 ft.	2.00
Barberry, Thunbergii, 18-24 ins., transpl.	.10
Thunbergii, Red, grafted, 15-18 ins.	.20

300 acres. Write for carload prices.
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Fall 1939 Spring 1940

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rose from Spain, Baby Gold Star, and a new tiny rose from Holland, Pixie. The latter was originated by John de Vink, of Holland. Baby Gold Star came from Pedro Dot, Barcelona, Spain.

Dr. Kirk was honored by having a new hybrid tea rose of burnished flaming scarlet named Dr. Kirk. It came from Charles Mallerin, Grenoble, France.

Long drought helped the autumn blooming of roses. After a forced rest and ripening of the wood, the plants produced finely colored and well formed blooms in profusion.

DINNER TO DR. McFARLAND.

To celebrate the eightieth birthday of Dr. J. Horace McFarland, nearly 200 employees of the Mount Pleasant Press, Harrisburg, Pa., with a good number of guests, met at dinner September 28, in a large assembly room at the plant. The place of the honored guest of the evening at the head table was marked by a bowl containing eighty magnificent roses in ten varieties. Similar bowls of one variety were displayed on other tables.

After the dinner, Henry M. Gross, a director of the company, acting as toastmaster, referred to Dr. McFarland's ability as an organizer and executive. Among others who brought greetings to Dr. McFarland were Miss Harlean James, Washington, executive secretary of the American Planning and Civic Association, of which Dr. McFarland was the founder; Dr. Frank A. Waugh, emeritus professor of landscape architecture at Massachusetts State College, Amherst; Samuel S. Pennock, Philadelphia, treasurer of the American Rose Society; James Vance, Cincinnati, a former superintendent of the Press, whose eightieth birthday falls on December 26 and who drove from his home solely to attend the dinner, and Dean Hoffman, editor of the Harrisburg Patriot-News, who brought congratulations from the newspaper fraternity.

Many congratulatory letters and telegrams from friends all over the country were read by J. W. E. Phillips, treasurer of the company. Among these were messages from Dr. L. H. Bailey, of Cornell University; E. B. Chapman, of the Pennsyl-

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Shipped from 2½-in. pots, about May 1. Earlier delivery if desired for southern or far western planting.

	Per 10	Per 100
Acers palmatum Ashi-Beni	\$3.50	\$30.00
palmatum atropurpureum	3.00	25.00
dissectum atropurpureum	3.00	25.00
Cedrus atlantica glauca	4.00	35.00
Chamomile officinalis gracilis nana		
comosa	3.00	25.00
Ceratodon purpureus pleniflora	3.00	25.00
Florida pendula	3.00	25.00
Florida rubra	3.00	25.00
Florida Welchii	3.00	25.00
Fagus sylvatica pendula	3.00	25.00
sylvatica Riverina	3.00	25.00
sylvatica tenuior	3.00	25.00
Ilex opaca americana	2.75	25.00
opaca Howardii	2.75	25.00
Juniperus communis glauca	2.75	25.00
communis viridis	2.75	25.00
chinensis nebariensis	2.75	25.00
chinensis Sargentii	2.75	25.00
chinensis Sargentii glauca	2.75	25.00
acuminata glauca	2.75	25.00
squamata	2.75	25.00
squamata argentea variegata	2.75	25.00
squamata Meyeri	2.75	25.00
virginiana Burkii	2.75	25.00
virginiana Canariensis	2.75	25.00
virginiana glauca	2.75	25.00
virginiana globosa	2.75	25.00
virginiana Kotschyi	2.75	25.00
virginiana Schottii	2.75	25.00
virginiana pendula	2.75	25.00
virginiana pyramidaliformis	2.75	25.00
Myrsinaceae Alexandrina	3.25	30.00
Halliana stellata	3.25	30.00
Lennsei	3.75	35.00
Soulangeana	3.25	30.00
Soulangeana nigra	3.25	30.00
Thuja occidentalis Douglasii spiralis	2.25	20.00
occidentalis elegansissima	2.25	20.00
occidentalis occidentalis Geo. Peabody	2.25	20.00
occidentalis lutea B. & A. Type	2.25	20.00
occidentalis nigra	2.25	20.00
occidentalis Rosenthali	2.25	20.00
occidentalis Wareana (sibirica)	2.25	20.00
orientalis aurea nana	2.00	18.00
orientalis conspicua	2.00	18.00
orientalis elegantissima	2.00	18.00
Tsuga canadensis Sargentii	2.75	25.00

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Apple	Pear, dwf.
Cherry	Plum
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Apple, Pear, Sweet and Sour Cherry.
Plum, Peach, Flowering Crab, 2-year.
Globe Arbor-vite, 12 to 15 and 15 to 18 ins.
Savin's Juniper, 15 to 18 and 18 to 24 ins.
Fitzter's Juniper, 3 to 4 ft.
Amoor River Privet, 3-yr., 3 to 4 ft.
Box Berry, 12 to 18 ins.
Climbing Roses
Concolor Fir, 3 to 4 ft.
Nikko Fir, 3 to 4 ft.
Variegated Yucca
Butterfly Bush Ille de France, 3-yr., extra heavy.
Pyramid Arbor-vite, 3 to 3 and 3 to 4 ft.

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vania Parks Association; Richard P. White, secretary of the American Association of Nurserymen; F. R. Kilner, editor of the American Nurseryman; G. B. Dealey, president of the Dallas Morning News; L. C. Bobbink, Rutherford, N. J.; H. G. Hastings, Atlanta, Ga.; C. S. Zimmerman, Pittsburgh; Max Schling, G. O. Stumpf and W. A. Sperling, New York city; Alex Cumming, Bristol, Conn., and others.

E. Fred Rowe, speaking for the employees of the Press, presented to Mrs. McFarland a great bouquet of chrysanthemums, and to Dr. McFarland a wrist watch and a leather-bound brochure containing the personal signatures of the Press employees, with the years of service indicated. The range of service varied from three weeks to fifty-four years.

The activities of Dr. McFarland and the honors bestowed on him were briefly enumerated in the October 1 issue of the American Nurseryman.

PLANT PATENTS.

The following plant patents have recently been issued, according to Rummler, Rummler & Davis, Chicago patent lawyers:

No. 341. Rose plant. W. I. Johnston, Portadown, Ireland, assignor to Jackson & Perkins Co., Newark, N. Y. A new and distinct variety of hybrid tea rose plant, characterized as to novelty by the free-flowering and double pink coloring of its large-size flowers, retention of the clarity of said coloring until dropping off of the petals and the resistant texture of said petals.

No. 342. Lemon tree. Sanford Johnson, Riverside, Cal. A new and distinct variety of lemon tree, characterized particularly by its vigorous growth, its relative resistance to cold and the complete absence of pollen from its flowers and seeds from its fruits.

No. 343. Poinsettia. Paul Ecke, Encinitas, Cal. A new and distinct variety of poinsettia, characterized especially by the variegated foliage, which is ovate entire acuminate.

NINE varieties are listed in the September bulletin of the Morton Arboretum as showing promise out of twenty sent there for trial in 1937 from the collection of Juniperus horizontalis and J. scopulorum with which L. A. and Donald Moffet, of the Plumfield Nurseries, Fremont, Neb., have been experimenting for some time in an effort to select types of definite superiority.

Trade Meetings

MAIL ORDER MEETING.

The annual meeting of the National Mail Order Nurserymen's Association will be held at 10 a. m., October 18, at the La Salle hotel, Chicago, Ill., announces E. H. Burgess, Galesburg, Mich., president.

OHIO WINTER MEETING.

The winter meeting of the Ohio Nurserymen's Association will be held January 16 to 18 at the Hotel Carter, Cleveland. The executive committee of the association at a recent meeting definitely set these dates and laid plans for the event. It will include, besides the regular state meeting, an A. A. N. regional meeting such as was held at Chicago last January. Ray Cook, of Geneva, O., is in charge of arrangements, and the assertion already is that this will be "a bang-up meeting."

MEET AT COLUMBUS.

Sixteen members of the Columbus Landscape Association attended the meeting held October 10 at the Charmel hotel, Columbus, O. Bert Kleinmaier introduced Sanford Lincoln, who briefly outlined the aims and purposes of the community fund.

Juniperus Scopulorum

Seedlings, 6 to 10 ins. \$60.00 per 1000
Seedlings, 10 to 12 ins. 90.00 per 1000

Malus

Arnoldiana, coronaria, floribunda, Matthewi, Parkmannii, Schiedeckeri
2 to 3 ft. \$15.00 per 100

Cotoneaster Divaricata

Seedlings, 8 to 12 ins. \$40.00 per 1000

Viburnum Dilatatum

Seedlings, 6 to 10 ins. \$40.00 per 1000
Write for price list of other stock.

HOOK'S NURSERY
Box 25
Highwood, Ill.

Ampelopsis Veitchii

(Boston Ivy)

2-year transplanted	Per 100
2 to 3 ft.....	\$12.00
18 to 24 ins.....	10.00
12 to 15 ins.....	8.00

Cash with order.

H. A. MEHAFFEY

Route 1
Painesville, O.

He also discussed the possible ramifications of the Bigelow plan, that is being considered by the people of Ohio for adoption in the constitution.

Regular business began with a discussion of the price of a local 10-6-4 fertilizer. It was voted that the wholesale price be raised from \$3.32 per hundred pounds to \$3.50 to compensate for the increase in price set up by the manufacturer.

Dr. L. C. Chadwick, of the department of horticulture of Ohio State University, then gave his talk on plants for shade. Copies of his new booklet, "Compiling a New Nursery List," were made available and discussion proceeded from them. Plants were considered for their ability to stand shade under wet, normal and dry soil conditions.

Dr. Chadwick demonstrated a new plant-tie which has recently put in its appearance. A wire is placed between two layers of asphalt paper, and plants are tied to stakes. Not only are the new tiers more durable, but they can be used over again and are not visible to the eye, which is important when selling plants from pots. The new product, called Twist-ems, was from Germain's, Los Angeles, Cal.

G. B. Slemmons briefly talked on

TREES—TREES—TREES

We have Several Thousand—	
Oriental Plane	1 1/2 to 3 -in. Cal.
American Plane	1 1/2 to 4 -in. Cal.
Honey Locust	1 1/2 to 2 -in. Cal.
Sugar Maple	1 1/2 to 3 1/2-in. Cal.
Scarlet Oak	1 1/2 to 2 -in. Cal.
Pin Oak	1 1/2 to 5 -in. Cal.
American and Moline Elm	1 1/2 to 6 -in. Cal.
Wheatley Elm	2 to 6 -in. Cal.

Write for Special Prices

HILLSDALE LANDSCAPE CO.
R. R. 13, Box 158
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LOMBARDY POPLARS

Cheap

Fine Specimen Stock	
500—6 to 8 ft.....	\$12.00 per 100
500—8 to 10 ft.....	15.00 per 100
200—12 to 14 ft.....	20.00 per 100

Packing at cost

Send for surplus list—Peonies, Shrubs, etc.

HARRY FRANKLIN BAKER
2929 Emerson Ave., S., Minneapolis, Minn.

**The Best in Native
Nursery-Grown
Rhododendrons
Kalmia Hemlocks
Azaleas and Pieris
LaBars' Rhododendron Nursery
STROUDSBURG, PA.**

the rise and use of balled and burlapped trees in the Columbus area. Formerly "filled" balls, made by digging the plant with bare roots, placing it in burlap and filling in with soil, were used. Evergreens were not successfully moved under this treatment, and it was not until the Berryhill Nurseries, Springfield, O., demonstrated a solid ball that evergreens gave satisfactory results. The idea spread to use on deciduous stock. William Speed mentioned that he considered it worth while to ball and burlap trees as small as three inches in diameter, as more satisfactory results are secured in getting the tree established. Dr. Chadwick pointed out that plants with fleshy roots and sprawling root systems should be balled and burlapped. The reason why evergreens had to be balled and burlapped was believed, years ago, to be that the solidification of the resin due to drying was injurious, but Dr. Chadwick explained that when a root of a deciduous plant dries it never recovers. The most plausible explanation is that transpiration occurs the year around on evergreens, and without a root system to absorb water, death will result.

Harry O'Brien commented on his recent western trip and mentioned the use of vitamin B₁ at the California Institute of Technology. Apparently it has some value, especially on transplanted stock, but more work must be done before conclusions are drawn. Colchicine is also being used by western seed growers to some extent. However, it is well to remember that the use of colchicine will not completely revamp anyone's hybridization work, because the new forms that are induced by this material are often inferior to the untreated plants.

At the next meeting, November 14, which will be held at Slemmons' Gardens, the speakers will be John Baringer, of the state bureau of plant industry, who will discuss the new nursery license law and the Japanese beetle quarantine, and John Siebenthaler, of Dayton, O.

DAMAGE to trees from drought may be reduced by pruning to reduce evaporation from the trees and feeding, particularly with a nutrient solution. On clipped lawns and in thin soils, evaporation is more rapid and injury to trees in such locations is most likely.

TREES

We have a fine assortment of excellent trees for Landscape, Parks or Street Planting.

**Pin Oaks, Red Oaks, Honey Locusts
Sugar Maples, Sweet Gums
European Lindens, Hemlocks and
Pines**

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Ridgefield, Conn.

BOBBINK & ATKINS

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Lower prices on **Evergreens, Deciduous Trees, Shrubbery, Berry Plants, Berry Thunbergii, green and red; Evergreen Barberry, Glossy Privet, California Privet, Lining-out Stock, 2-yr. Budded Apple Trees, Peach Trees in quantity—Hale Haven, South Haven, Elberta, etc.**

It would be to your interest to have our new trade list which will be mailed on request. For large quantities mail us list for Special Letter Prices.

The Westminster Nurseries
WESTMINSTER, MARYLAND

• TAXUS •

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FRAMINGHAM MASSACHUSETTS

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Splendid Stock

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MILFORD DELAWARE

PRINCETON NURSERIES

of PRINCETON, N. J.

SUPERIOR

Hardy Ornamentals

TAXUS
Cuspidata Capitata
1½ to 10 feet.
Best available.
Carloads or truckloads only.

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Springfield Gardens, L. I., N. Y.

We specialize in
APPLE AND PEACH TREES
Strawberry, Asparagus, Raspberry and
Blackberry plants.
Grapevines, 1 and 2-year.
OUR MANY YEARS' PRODUCTION
EXPERIENCE COMBINED WITH OUR
FAVORABLE LOCATION ENABLES
US TO OFFER STOCK THAT MUST
PLEASE AT PRICES YOU WILL APPRECIATE.
Submit your definite list for quotations.

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Princess Anne, Md.

TAXUS HEADQUARTERS

Brevifolia Intermedia
Capitata Media Hatfieldii
Cuspidata Media Hicksii

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Newark, New York

BURR'S QUALITY
Barberry Thunbergii
California Privet, Hydrangea P. G.
For Fall 1939 and Spring 1940
C. R. BURR & CO., INC.
Manchester, Conn.

KOSTER COMPANY, INC.
ILEX BULLATA
4 to 6 ins., 1-yr., tlp., beds.....\$80.00 per 1000
6 to 9 ins., 2-yr., tlp., field.....150.00 per 1000
RHODODENDRON HYBRIDS, GRAFTED
9 to 12 ins., 2-yr., tlp., field.....\$600.00 per 1000
Twenty-six varieties to select from!
BRIDGETON, N.J. Write for catalogue.

Codling Moth Control

Chemically Treated Tree Bands Subject of Experiment at Virginia Agricultural Station

One of the chief methods of controlling codling moths before the advent of sprays was the use of bands of burlap or similar material as a trap for the worms. The success of this method is based upon the worms' habit of hiding in the trees. However, some of the worms complete their growth and leave the trees before the fruit drops, while others do not leave until after the fruit has fallen to the ground.

The Virginia agricultural experiment station has been experimenting with the use of chemically treated codling moth bands since 1933. Bands used in this experimental work during the past four years have captured more than twenty-three worms per tree, according to A. M. Woodside, assistant entomologist at the Virginia experiment station, and in one orchard more than forty-one worms per tree were caught. The bands will not kill all worms entering them, but when the bands are removed in the spring the remaining worms are destroyed.

In making the bands a single-faced corrugated strawboard, with thirty-six to forty corrugations per foot, was found to be best suited for the purpose. Good results were obtained with either kraft-faced paper or jute-faced paper, but the jute paper was found to withstand rough treatment better than other types.

The paper is cut across the corrugations into strips about two inches wide. Wider strips may be used, but the 2-inch band was found to provide suitable space for all the worms to enter, except under conditions of heavy infestations. If the trees are so heavily infested that a 2-inch band is not adequate, it is better to place bands around the main limbs as well as the trunk of the tree, rather than to use a wider band.

Mixtures for dipping the bands may be prepared at home, but factory preparations are advised, as they will give a smoother coating and last longer. The addition of one ounce of aluminum stearate to each quart of gasoline, which is used to dilute the mixture, will ensure the coating's remaining soft and prevent its flaking off. Bands so prepared will give good

results over a longer period of time and they are more effective in arid regions, or during dry, hot seasons. Approximately forty per cent of the dipping solution should be beta-naphthol.

The Virginia experiments showed that the best results are obtained from bands containing ten ounces of coating per twenty-five linear feet of 2-inch material, or approximately six pounds of material for every roll of 250 feet of the banding.

For best results the bands should be placed on the trees before the first worms leave the fruit; the exact time, of course, depends upon the locality. Care should be taken not to place bands too early, as they will lose their strength when exposed to the sun and air.

A homemade reel that will hold the roll of banding in a horizontal position will greatly facilitate banding operations. When attaching the band to the tree care should be taken

not to stretch the material, as this will flatten out the corrugations. Use enough banding to reach completely around the trunk, filling all depressions, with an overlap of about two inches being allowed where the ends meet. The band is fitted around the trunk and attached with staples or large-headed tacks, one staple or tack for each depression. After the band has been fastened at all depressions, it should be secured with a staple at the ends.

Some trees are injured by the dip mixture and a burlap band, folded to three thicknesses, should be used in place of the treated material. The bands are removed once a week during the summer and the worms removed and killed.

Bands should remain on the trees until after the apples have been harvested and the drop fruits removed. If the drop apples are left on the ground the bands are left on the trees for several weeks after the harvest. They may be removed at any time during the winter and burned immediately.

It is advisable to scrape the trees and burn the bark before banding. In this way many larvae, not only of

"Send us six more copies. It is one of the most useful documents that has come our way in a long time."—H. B. Chase, Pres., Chase Nursery Co.

"Dr. Chadwick's list is truly excellent. The sources of supply appended is very good, indeed."—Donald Wyman, Horticulturist, Arnold Arboretum.

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Selection of Superior Varieties of
Woody Deciduous Ornamental Plants

By L. C. Chadwick

Describes and discusses the best plants among trees and shrubs in various sizes, vines and ground covers.

Lists uses, culture, characteristics, growth habits to make easy selection of suitable varieties for various landscape purposes.

Sources of supply of selected plants indicated in key list of 68 nurseries.

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508 South Dearborn St., Chicago, Ill.

Enclosed is remittance for copies of the book,

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1 copy, 40 cents 3 copies, \$1.00.

Name State

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SHADE TREE BARGAINS

Chinese Elm, 6 to 8 ft.	\$0.30
Chinese Elm, 8 to 10 ft.	.50
Lombardy Poplar, 6 to 8 ft.	.18
Lombardy Poplar, 8 to 10 ft.	.22
Holleana Poplar, 5 to 6 ft.	.30
Holleana Poplar, 6 to 8 ft.	.45
Nioe Willow, 6 to 8 ft.	.35
Nioe Willow, 8 to 10 ft.	.50
Sugar Maple, 1 1/4 in. to 1 1/2 in.	1.10
Sugar Maple, 1 1/2 in. to 2 in.	1.75

Write for complete new wholesale list.

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3 to 4 ft.
\$20.00 per 100, \$150.00 per 1000
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MOSAIC-FREE LILIES

Many new hybrids. For the first time you may have mosaic-free bulbs, fully guaranteed. Be among the first to change over to mosaic-free stock.

WILLIAM CROSBY MORSFORD, Charlotte, Vt.

the codling moth, but of other insects, will be killed. This scraping should take place before the tree blooms, and it is usually done during the winter when other work is not so pressing. During the scraping process all split and dead branches should be removed and all decay cavities cleaned and filled with some suitable substance.

The cost of banding trees varies according to the size of the orchard and equipment available, but the average cost for mature trees in Virginia has been about 5 cents.

Ready-prepared banding may be purchased at prices ranging from \$2.50 to \$3.50 per roll of 250 feet.

It is not advisable to prepare the banding unless the grower is able to use 4,500 feet, as this is the minimum-size roll of paper obtainable. A roll of this nature requires fifteen gallons of factory-prepared dip and eight gallons of lead-free gasoline.

CROSS-POLLINATION.

Extensive tests carried on at the New York state experiment station, in which entire trees were completely surrounded with a cheesecloth tent or cage to keep out insects and to keep in a hive of bees placed in the enclosure to effect pollination of the blossoms, have demonstrated that most varieties of apples and pears, all varieties of sweet cherries and several varieties of plums require cross-pollination to ensure a satisfactory set of fruit.

Most peaches and nectarines will set fruit to their own pollen, but a few varieties, such as Mikado and J. H. Hale, must be interplanted with other sorts. While little is known about apricots, many reports have been received that isolated trees do not set fruit, indicating that interplanting of varieties is probably desirable with this fruit.

While apple varieties may be classified roughly as self-fruitful, that is setting fruit to their own pollen, partially self-fruitful or self-unfruitful, cross-pollination with the right variety almost invariably proved beneficial.

Even though they may produce excellent pollen, most pear varieties do not set fruit satisfactorily to their own pollen, while all sweet cherries must have cross-pollination. Most sour cherries, on the other hand, will set fruit satisfactorily when grown

Carloads**HARDY****Canadian-Grown****SHADE TREES • EVERGREENS****PERENNIALS ROSES**

FRUITS (including the famous new Peaches Vedette, Valiant, Veteran, etc.)

Send us your want list or write for prices. Quality and prices will be right.

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NORWAY MAPLES**Specimen Trees**

In sizes up to 4-inch cal.
Attractive prices in quantity lots.

Also complete list of nursery stock.
Send for prices.

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DRESHER, PA.**SOMETHING NEW!****OUR CATALOGUE****WRITE FOR IT****LE-MAC NURSERIES**

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**NURSERY STOCK
AT WHOLESALE**

New Perennial Introductions

ARTHUR DUMMETT
61 West Grand St. Mt. Vernon, N. Y.

LINERS, extra nice

Borberia, Calycanthus, Cornus, Cratagus cordata, Fraxinus, Malus coronaria, Chinese Elm, Multiflora Rose Stock, the nicest block of Multiflora in the country. How many do you want and what size? A good many other items in quantity. Send for bargain list, now.

ATLANTIC NURSERIES, Inc., BERLIN, MD.

**Old English
BOXWOOD**

Wholesale

10 ins. and up — Any quantity

BOXWOOD GARDENS

Mrs. R. P. Boyer, High Point, N. C.

alone. Plums present some complications in that European and Japanese varieties usually do not work well together, whereas Japanese and American plums will pollinate each other.

HARTFORD TREE FIRM.

Picturing their International trucks as used for spraying and for removing trees, the September issue of the International Trail, published by the International Harvester organization, devoted a page and one-half to an account of the firm of P. Hansling & Son, Hartford, Conn., operators of the Hartford Forestry Co. and the Hartford Tree Expert Co. This business was begun by C. H. Sierman in 1900 and purchased by Philip Hansling, Sr., in 1913, who was joined by a son in the following year. Mr. Sierman continued in landscape work and Mr. Hansling confined himself to tree care. Philip Hansling, Jr., has been head of the business since 1929, upon the retirement of Mr. Hansling, Sr., who died in 1934.

Trees are a hobby as well as a profession with the family. Mr. Hansling is active in radio educational work, acting as radio nature forester for Naturalist Thornton W. Burgess of Springfield, Mass. Mrs. Hansling, who is a licensed tree expert and takes care of the office, published a book of verse on trees in 1936.

MUCK VS. PEAT MOSS.

If war continues in Europe, muck from native swamps may displace imported peat moss in gardens next spring, according to Dr. M. F. Morgan, chief of the soils department of the Connecticut agricultural experiment station. Although deposits of muck are plentiful in various states, the market has depended largely upon German and Swedish materials in the past.

This year several firms have become interested in developing a native muck industry, and the experiment station has run greenhouse experiments comparing the relative value of materials from different sources. Results of the work will be published in time for spring gardening, Dr. Morgan reported.

Peat moss and muck (frequently sold under the name of "humus") are valuable for their moisture-holding capacity and for the amount of humus

they contain. Mixed with soil that dries out too rapidly, they absorb and hold the rainfall for plant use.

Peat moss is taken from a moss deposit and is completely dried, but does not lose composition or form in the process. It weighs about 160 pounds of dry material to the bale, ninety-five per cent of which is organic matter. Muck differs in make-up and is sold in bulk, instead of by weight, in a moderately moist state. In this mellow or friable condition, it mixes with soil more easily than the peat moss. A cubic yard of a good grade of muck contains from 300 to 500 pounds of dry matter, of which sixty to ninety per cent is humus. Approximately three-fourths cubic yard of swamp muck is equal to a bale of imported peat moss.

SOUTHWESTERN NEWS.

C. W. Slifer, Concordia, Kan., has taken over the nursery business of C. W. Turner and E. B. Frankenforther. It will now be called the Cloud County Nursery.

The Schell Nursery, Wichita, Kan., has been awarded the contract for landscaping the new public school grounds at Independence, Kan., a P.W.A. project.

Perry Lambert, Hiawatha, Kan., has secured the contract for the landscape work on the Olathe post office, to total \$600.

The Wagoner Nursery, Hutchinson, Kan., is now housed in a new office building.

Frank Pflaum, of the Shawnee Nursery, Shawnee, Kan., has constructed a new residence on his place, on highway 50.

COTONEASTER APICULATA

(cranberry cotoneaster)

Prostrate - Horizontally Branched

Glossy Green Foliage—Large Red Berries

proved absolutely hardy in

central and northern Ohio

Fall 1939 Delivery

Each Per 10 Per 100

18 to 24 ins. B&B... \$1.15 \$10.00 \$80.00

F.O.B. Springfield, Ohio

Packing extra at cost.

THE BERRYHILL NURSERY CO.

Box 696 Springfield, Ohio

Special Offer—BIOTA ORIENTALIS

Per 100 Per 1000

UNDERSTOCK, T. 8 to 12 ins... \$2.50 \$17.50

UNDERSTOCK, T. 12 to 15 ins... 3.50 25.00

These are strong forced transplants, excellent

understock.

Fairview Evergreen Nurseries
Fairview, Pa.

The state of Oklahoma is advertising for bids for two roadside improvement projects. One, in Pontotoc county, is to run six miles out of Ada and will require 390 shade trees and 344 shrubs; the other, out of Miami in Ottawa county, will require 520 shade trees and 162 shrubs. Bids are to be opened October 24.

Edwin Dill, who was arrested last December on complaint of C. D. Wagoner, Hutchinson, Kan., for giving a no-fund check, was let out of jail this summer on bond. When his case was called, September 25, he was found to have jumped his bond and is believed to be operating in Missouri. Nurserymen should be warned against extending him any credit.

Herbert O. Schrepel, of the Schrepel Landscape Service, Great Bend, Kan., spent a week in the hospital lately with an infected foot. He reports that it is too hot and dry in his part of the country to do any planting.

Jack Amos, Chanute, Kan., is starting a small nursery and sales yard.

MUNCIE HOUSING AWARDS.

Two contracts for landscaping have been awarded the Hillsdale Landscape Co., Indianapolis, Ind. One is for the landscaping of the Delaware county housing authority project, near Muncie, to include eight and one-half acres of lawn, 180 shade trees, 460 shrubs and vines, at an estimate of \$12,500 for the work. The other is for the Muncie municipal housing commission, which will require seven acres of lawn, 310 trees, 734 shrubs and vines and 8,500 hedge plants, to cost \$18,350.

VIBURNUM BURKWOODII

NEW - SCARCE - HARDY

Most striking improvement in flowering shrubs in many years—fragrant pink and white flowers.

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Per 10 Per 100

15 to 18 ins. B&B... \$10.00 \$8.50

18 to 24 ins. B&B... 15.00 125.00

2 to 3 ft. B&B..... 20.00 175.00

3 to 4 ft. B&B..... 30.00 250.00

F.O.B. Dayton, Ohio.
Packing extra at cost.

The Siebenthaler Company
DAYTON, OHIO

GRAFTED EVERGREENS

Bedded strong stock
for fall planting

Size 12 to 16 ins.
\$37.50 per 100.

*Canaertii, Glauca, Burkii, Hillii,
Mascula, Columnaris glauca, etc.*

THE
PAUL OFFENBERG NURSERY
1988 E. Livingston Ave., Columbus, Ohio

Colorado-Grown

*Chinese Elm, seedlings and transplants.
Caragana Arborescens, transplants only.
Now booking orders for spring shipment
in combination carloads. Wholesale
list on request.*

Eastern representative
Ralph R. Coe
Box 253, Palisades, Ohio.

Swink Nursery Company
Box 230
Swink, Colorado

HARDY TREES at BARGAIN PRICES

CHINESE ELM—Large Sizes
6 to 8 ft., 8 to 10 ft., and Caliper

RUSSIAN OLIVE SEEDLINGS
Low Prices on Large Quantities

HONEY LOCUST SEEDLINGS

Write for Wholesale Prices

THE HOUSE OF GURNEY, Inc.
Yankton, South Dakota

CHINESE ELM

Pumila, Northern Strain
All transplanted stock, 3 and 4 years old.
3 to 4 ft., 10c; 4 to 5 ft., 12c; 5 to 6 ft.,
20c; 6 to 8 ft., 40c; 1½ to 1¼ ins., 65c.
Approximately 25,000 to select from.
Inspection solicited.

SWEDBERG NURSERY, Battle Lake, Minn.

FRUIT TREES

Heavy on Apple and Peach. Can furnish
by carload. Send us your want list.
Write for prices.

COMMERCIAL NURSERY CO.
Decherd, Tenn.

PEACH TREES

Special Fall Prices

Budded from selected bearing
trees. Absolutely true to name.

THE SECOR NURSERIES
Perry, Ohio

VIBURNUM BURKWOODII.

Viburnum Burkwoodii is described as a handsome, early-flowering shrub, of great value for American gardens, by Mary G. Henry, Gladwyne, Pa., writing in Horticulture from ten years' observation. She received from Mr. Burkwood some plants to try out in 1929, when the Royal Horticultural Society gave the shrub an award of merit and thus launched it successfully on a career in English gardens.

"In this latitude," she writes, "it can scarcely be called evergreen, but it holds its foliage late in the autumn, and some old leaves remain until the fresh spring leaves arrive."

"Each spring this handsome shrub produces—with great lavishness—its trusses of coral-pink buds, which soon expand into deliciously fragrant pinkish-white blossoms; it is then a sight to see, the glossy green leaves being an added attraction. With the advent of frosty weather the leaves assume pleasing shades of purple and bronze."

"In his 'Manual of Cultivated Trees and Shrubs' Dr. Rehder gives the height of V. Carlesii as one and one-half meters and that of V. utile as two meters. The above are the parents of V. Burkwoodii. As is so often the case with hybrids, V. Burkwoodii is a larger and more robust-growing plant than either of its parents. From the former it inherits its fragrant and beautiful flowers, also its hardy constitution, and from the latter its fine partly evergreen foliage. It was raised in England by the skilled hybridizer, A. Burkwood, Kingston-on-Thames. Fortunately this shrub is easily increased by cuttings."

HOUSTON RADIO PROGRAM.

Each Wednesday and Friday morning, the Garden Club of the Air presents a program over station KPRC, at Houston, Tex., sponsored by the Gulf Oil Corp. Mrs. Ralph Conselyea devotes her full time to the programs, in an effort to encourage and promote more extensive gardening in the Houston area. Each program deals with some phase of gardening, and a notebook containing copies of each talk is supplied upon application from an interested gardener.

October 6, Miss Wilma Gunter, of the Griffing Nurseries, gave a talk on inexpensive foundation plantings in a most interesting way.

TAXUS CUSPIDATA

Spreading Yew

Improved dark green strain. Best for sun or shade, foundation plantings and hedges.

Each	
15 to 18 ins.	\$0.90
18 to 24 ins.	1.25
2 to 2½ ft.	1.65
2½ to 3 ft.	2.50

Also larger sizes

The above prices in lots of 100
f.o.b. Cincinnati, Ohio

THE W. A. NATORP CO.
Cincinnati, Ohio

JUNIPERUS VIRGINIANA

Understock

\$50.00 per 1000

Fine clean stock

HOLTON & HUNKEL CO.
Milwaukee, Wis.

Juniperus Chinensis Pfitzeriana

Lining-out stock

3-yr., once transplanted and staked	Per 100	Per 1000
5 to 8 ins.	\$10.00	\$ 85.00
9 to 12 ins.	16.00	145.00

Grown right, handled right and packed right. Cash or satisfactory reference.

AUGUSTINE NURSERIES
A. M. Augustine, Prop.
Normal, Ill.

EVERGREENS

Lining-out and Specimens

Fruits and Shrubs

Write for price list

J. V. BAILEY NURSERIES
Dayton Bluff Sta. St. Paul, Minn.



EVERGREENS

For Seventy-five Years
Growers of Quality Evergreens
Lining-out Stock a Specialty

Write for Trade List

EVERGREEN NURSERY CO.
Established 1864 : STURGEON BAY, WIS.

Blue, White and Norway

SPRUCE

Liners

Sizes from 2 to 4 years. Larger sizes also.

I. C. PATTON, Shepherd, Mich.

OREGON FALL MEETING.

[Concluded from page 14.]

1,394 nursery licenses were issued last year. He gave a complete report on how this money was distributed. Mr. McKennon also touched on the matter of state quarantine. He told of the meeting of the uniform quarantine committee, September 25, at Reno, Nev., and of the work done there.

Bacher Tells of Travels.

Closing highlight of the afternoon session was a descriptive account by J. G. Bacher, president of the Swiss Floral Co., of his recent trip to Europe.

Mr. Bacher covered some 13,000 miles of ocean travel, 5,000 miles of railroad travel through European countries and 5,000 miles of automobile travel, besides about 7,000 miles by air. He first visited the floral displays at the San Francisco exposition, sailing from San Francisco on the Italian freighter Fella. The 9,000-mile trip from San Francisco to Marseilles, France, was made via the Panama canal. He told of the life and vegetation in Guatemala, San Salvadore and that section of the country.

In Marseilles, the largest shipping harbor in France, he said the thing that impressed him most was the age of the city and the closeness of the buildings. There is a sculptural excellence in all of the buildings. He told of visiting the botanical gardens of Marseilles and visiting other parks in France. Throughout France there seemed to be a more or less indifferent feeling toward gardening. The Exotic Gardens of Monaco, he said, are one of the most marvelous conceptions of a garden that you can imagine. Cacti and succulents grow naturally there.

From France Mr. Bacher went to Italy. There every inch of ground was covered with crops. He told of visiting the cemetery at Genoa, where flowers were practically absent, but the mass of Italian sculpture was outstanding.

A month was spent seeing Switzerland. "From the gardening angle Switzerland perhaps is the most intensively cultivated country in the world," said Mr. Bacher. Even the steep mountain hillsides are cultivated.

From Switzerland he flew to Southport, England, "where the art of gardening has progressed more, perhaps, than in any other place." According to Mr. Bacher, the flower show at Southport was the most outstanding

part of this trip and was marvelous beyond belief. Spring and fall flowers were shown, all in bloom; fruit trees with ripe fruit, and rock gardens of all kinds. The outstanding feature of the show was the artistic displays and the skill used in making these displays. "England is sold horticulturally," said Mr. Bacher. The people there have a greatly diffused knowledge of gardening as a whole.

Because of declaration of war he was forced to leave Europe sooner than he had intended. Return was made via New York, where he visited Gardens on Parade at the fair.

Mr. Bacher took kodachrome pictures of his entire trip and of the gardens he visited and hopes to show them at some future time.

CALIFORNIA OFFICERS.

Inasmuch as the annual meeting of members, scheduled for September, was not held this year, Eugene F. Fowler, president of the California Association of Nurserymen, called a special meeting of the board of control for October 6, at the Biltmore hotel, Los Angeles. At the meeting Frank Tuttle, of W. B. Clarke & Co., San Jose, was elected president for the ensuing year, and L. C. Wallace, of the Leonard Coates Nurseries, San Jose, was elected secretary. Henry W. Kruckeberg, Los Angeles, who has served as secretary of the association since its organization, was elected honorary secretary for life.

NEW JERSEY NEWS.

At a meeting of the executive committee of the New Jersey Association of Nurserymen, September 26, membership dues were doubled for 1940 in order to finance the association's advertising campaign. After discussion of the means of raising advertising funds at the summer meeting, it was voted to authorize the committee to increase the dues to three times the old figure, if necessary, but the executive committee found that much not required. The money collected for advertising is turned over to the state secretary of agriculture, to match the appropriation granted by the state. An initiation fee, which has been waived for several years, will be required of new members after March 1, 1940.

February 5 to 9 are the dates of the nursery school to be held at Rutgers University, New Brunswick. A committee composed of Charles Hess, Russell Jacobus and Gerard Grootendorst met recently with Prof. F. G. Helyar, Dr. C. C. Hamilton and Dr. P. P. Pirone to discuss plans for the short course, which will include a study of perennials.

In the September primary election, William Howe, Jr., Pennington, running for the Republican nomination for the assembly, polled twenty-five per cent more votes than any candidate on either ticket. Other nurserymen successful in the election were Gerard Grootendorst, Oakland, nominated as Republican county committeeman; Roland DeWilde, Jr., Shiloh, Demo-



The New Plant Bands

Inexpensive wood plant bands instead of pots for growing on perennials. Six sizes. Better write for samples and prices.



Geo. J. Ball
INC.
WEST CHICAGO
ILLINOIS

"FLOWER SEEDS FOR NURSERYMEN"

Send for Catalogue

Attention, Please

CAMpanula CATESBEI. Bluebells, 2-yr. plants, \$3.00 per 100.

SANGUINARIA CANADENSIS. Blood-root, 2-yr. plants, \$3.00 per 100.

TRILLIUM ERECTUM. Upright Trillium, 2-yr. plants, \$4.00 per 100.

Ask for our Wholesale Price List.

O. H. PERRY NURSERY CO.

Established in 1928 by O. H. Perry
Box 545, McMinnville, Tenn.
Nothing Sold at Retail.

CORNUS FLORIDA

(White Dogwood)

	Per 10 Per 100
4 to 6 ft., B&B	\$6.00 \$50.00
6 to 8 ft., B&B	8.50 75.00
8 to 10 ft., B&B	12.50 90.00
10 to 12 ft., B&B	20.00 175.00

First-class trees. F.o.b. Roanoke, Va. Packing at cost.

HEDGE LAWN NURSERIES, INC.

Roanoke, Va.

FRENCH LILACS PEONIES EVERGREENS

And Other Fall Planting Specialties

Write for Complete Wholesale List
BRYANT'S NURSERIES
Princeton, Illinois

PEONIES

All types, including Tree Peonies
The Cottage Gardens
Lansing, Mich.

PROFITABLE PEONIES

Best Varieties. Attractive Prices.
Fine quality roots, liberally graded.
28th Annual Catalogue ready.

HARMEL PEONY COMPANY
Growers of Fine Peonies since 1911
Berlin, Maryland

QUALITY PERENNIAL PLANTS

Specialties
Gypsophila Bristol Fairy and Dicentra
Spectabilis.

Let us quote on your perennial needs.

PERENNIAL NURSERIES Painesville, O.
Alva H. Smith R.F.D. 2

Famous Cushion Mums

TRUE HARDY AMELIA VARIETIES
Supply unlimited. Quality unsurpassed.
Big catalogue, free for the asking.

WONDERLAND NURSERIES, Ellerson, Va.

HERBS

Pot-grown plants; over a hundred varieties.
Dried Herbs for Flavoring and Fragrance.
Other plants of unusual character and
with the charm of old-time gardens.

New Catalogue sent on receipt of 10 cents.
WEATHERED OAK HERB FARM, INC.
Bradley Hills, Bethesda, Maryland

catic nominee for freeholder, and James T. Cox, West Oakland, Democratic nominee for councilman. Dr. C. C. Hamilton won Republican nomination as councilman in Highland Park.

A committee appointed by President Hess of the New Jersey Association of Nurserymen to coöperate with Charles P. Wilber, secretary of the state department of conservation and development, includes William Flemer, Jr., Princeton; George Jennings, Ralston; Col. E. Phillips, Andover; William Hallacy, Clifton, and William Wells, Millville.

Speakers on the Radio Garden Club's broadcasts over WOR and the Mutual broadcasting network at 11:45 a.m. Mondays and Fridays include Dr. P. P. Pirone, of Rutgers University, October 30, on "Tree Dietetics," and G. G. Nearing, Ridgewood, December 22, on holly.

George Bloomer, Flemington, has moved his nursery to a new location on route 30 halfway between Flemington and Clinton. He reports his best year in business since 1929.

Maarten Freese, Caldwell, is building a greenhouse for growing perennials and bedding plants.

APPLE CROP CENSUS.

Between one-sixth and one-seventh of the nation's apple crop is usually produced in the two foremost counties of Yakima and Chelan in Washington, according to the last agricultural census of the United States Department of Commerce. Growers in these two counties had 3,118,629 trees, from which they harvested 21,173,908 bushels in 1934. Okanagon and Douglas counties, in Washington, also ranked among the first counties in apple production, ranking third and fifth, respectively, in production and thirteenth and twenty-fifth in the number of trees.

The 100 leading counties produced sixty-three per cent of the nation's crop and had thirty-six per cent of the trees. Of these 100 leading counties, fourteen were in Virginia, thirteen in New York, twelve in Pennsylvania, seven in Illinois, six each in Michigan and Ohio, five in Washington, four each in Massachusetts and North Carolina and three each in Missouri, New Jersey and West Virginia. Eighty-two per cent of these leading counties are east of the Mississippi river.

RASPBERRIES

Latham — Chief
Newburgh — Taylor
Indian Summer Everbearing

RED LAKE CURRANT

MACDONALD RHUBARB

MANCHURIAN CRAB Under-Stocks

ANDREWS NURSERY

Faribault, Minn.

If it's new for
the Northwest, we have it!

In quantity, we grow:

New Red Lake Currant
McDonald and Ruby Rhubarb
Cornus Elegantissima
Cotoneaster Acutifolia
Physocarpus Monogynus
Minnesota Fruit Breeding
Farm originations

SUMMIT NURSERIES

Stillwater, Minnesota

Wholesale Growers of

Grapevines, Currants, Gooseberries,
Blackberries and Raspberries

Let us quote on your requirements

FOSTER NURSERY COMPANY, INC.

60 Orchard St. Fredonia, N. Y.

GRAPE VINES, CURRANTS, GOOSEBERRIES AND BERRY PLANTS.
Growing for the wholesale trade since 1890. The quality of our plants will please your most critical customers. Get our attractive quotations before placing your orders.

THE F. E. SCHIFFERLI & SON NURSERIES
Fredonia, N. Y.

SMALL FRUIT PLANTS

Evergreens—Shrubs
Lining-out Stock
Send for Complete Trade List

SCARFF'S NURSERIES
New Carlisle, O.

Our Specialties Are
GRAPEVINES, CURRANTS,
STRAWBERRIES

General line of Small Fruit plants

Trade list sent on request
L. J. RAMBO'S WHOLESALE NURSERIES
R. 1 Bridgeman, Mich.

NOTICE

50,000 Apple and Peach trees, commercial varieties, after fall and winter shipment. 20,000 2-yr. American River Peaches. We are in the market for 2000 to 4000 each of lining-out *Berkman's*, *Benitas* and *Pyramidalis Arbor-vitae*; *Mugho*, *Scotch*, *Austria* and *White Pine*; *Striata*, *Irish*, *French*, *English*, *Pitzer's*, *Savins*, and *Andorra Junipers*. Need several thousand lining-out shrubs also.

Egyptian NURSERY CO., Farina, Ill.

ROSES

Carlots of field-grown roses, budded stock, at 4½¢ each, cash. Write for list of 60 varieties. Carlot shipments begin in December. Small lots in November.

BROWN & LARISON ROSE NURSERY
R. 9 Tyler, Tex.

News from Northwest

BUYS BONNELL NURSERY.

The Bonnell Nursery, at Bryn Mawr, Wash., has been purchased by Frank B. Bonnell, son of the late J. J. Bonnell, founder of the establishment.

Occupying in part the beds of the Black and Cedar rivers, which emerged when Lake Washington was lowered, the nursery, of eighty-one acres, extends along the west side of the valley at the south end of the lake.

Frank B. Bonnell, reared in the nursery business and trained for it at Oregon State College, was head gardener at the University of Washington until last month and had served as acting head of the university arboretum and with the national park service previously.

The property, assembled in 1922, includes areas which were favorite gathering places for Indians in Seattle's early days. Potlatches and pow-wows were frequently held at the junction of the Black and Cedar rivers, and an ancient Indian burial grounds, in which warriors were interred standing with their faces to the east, is part of the property.

SEATTLE ARBORETUM.

Conversion of a 268-acre tract at Seattle, Wash., into a botanical garden already advertised as one to rank among the finest in the country is under the sponsorship of the University of Washington, the Seattle park board, the arboretum foundation and the Work Projects Administration. More than \$1,500,000 has been approved or pledged by the W.P.A. and the sponsors for its development, and almost \$1,150,000 has actually been expended on the project since it was started almost four years ago.

After two years of work, 26,650 plants representing 816 species and 650 varieties have been gathered. More than 76,000 seeds have been obtained, representing 320 species and 560 varieties of plant life. In addition to this collection, species of native trees, shrubs and flowers had been gathered from all parts of the American northwest.

Rhododendron, the state flower of Washington, will have a place of its own in the arboretum. Rhododendron

glen will be the beauty spot where cultured flowers of this species will be developed for planting in eastern Washington.

In this botanic garden, where it will be possible, according to botanists, to grow ninety-eight per cent of the plants in the temperate zone, there will be groups of azalea, magnolia, lilac, linden, dogwood, yew, flowering cherry, holly, rose and others.

An entire carload of rhododendron plants was donated to the arboretum by C. O. Dexter, rhododendron fancier and patron of the Arnold Arboretum. Another important gift of the Washington state flower was received from Mrs. Cecil L. Tenny, who donated her late husband's collection of rare rhododendrons gathered by him in remote parts of Asia.

WASHINGTON NOTES.

Howard E. Andrews & Co., Seattle, are digging and making delivery of a large crop of azaleas.

The Richmond Beach Nurseries, Richmond Beach, were awarded the contract to landscape the Shelton post-office grounds.

HARDY, NON-IRRIGATED ROSEBUSHES
and
FULL LINE OF EVERGREEN-SHRUBS
"Special"—
OREGON GRAPE
Healthy and Bushy
2 to 3 ft. high at 75c each
MOUNTAIN VIEW FLORAL NURSERIES
Troutdale, Oregon

HARDY PLANTS
Bleeding Heart, 3 to 5-eye clumps, \$7.50 per 100;
6 to 10-eye clumps, \$12.50 per 100.
Delphinium, Blackmore & Langdon, 1-yr. plants,
\$1.25 per 100; \$10.00 per 1000; 3-yr. clumps,
\$4.00 per 100.
Gaultheria, Elliott, 1-yr. plants, \$1.25 per
100; \$7.50 per 1000.
Pyrethrum, 2-yr. untransplanted, \$2.00 per 100.
Iris, 1 each, 200 varieties, labeled, \$15.00; 20
each, 50 varieties, \$12.50.
SMITH GARDENS CLARKSTON, WASH.

APPLE SEEDLINGS
CHINESE ELM SEEDLINGS
Yakima Valley grown.
WASHINGTON NURSERIES
Toppenish, Wash.

The garden public is taking advantage of the glorious fall weather and is purchasing heavily, report nurseries in and about Seattle.

T. R. Hopkins, proprietor of the Hopkins Nursery, Bothell, has a smile that won't come off these days, since his twin sister from the east is visiting him and, of course, his thoughts revert to their childhood days when sister and he sat opposite at the same study table—sister reading and he reading upside down. No wonder he sees all that is going on and is still energetic and serving the garden-minded public daily at the young age of 83 years.

W. L. Fulmer.

ROSEFIELD GARDENS MOVE.

The Rosefield Peony Gardens, formerly at Des Moines, Ia., have moved to a new location twelve miles southwest of Portland, Ore., with Tigard, Ore., as the mail address, according to Reno Rosefield, owner.

The gardens were established at West Point, Neb., in 1884 by J. F. Rosefield, who died in 1934, just fifty years after founding the business. In 1910 Mr. Rosefield moved the gardens to Omaha, Neb., and in 1920

We are now booking orders for

Vine Maple Seedlings.
Norway Maple, Whips and Seedlings.
White Birch, Trees and Seedlings.
Cutleaf Birch.
Pacific Dogwood Seedlings.
Mountain Ash, Trees and Seedlings.
Chinese Elm, Trees and Seedlings.

Catalogue mailed on request.

DOTY & DOERNER, INC.

Route 6, Box 92
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PACIFIC COAST NURSERY

2244 N. Skidmore Court
Portland, Oregon

We can furnish any variety of Fruit Tree seedlings in all grades, Chinese Elm seedlings and transplanted Elms, Cut-Leaf and White Birch trees, Norway Maple whips and Italian Prunes. We can benefit you with quality stock as well as prices. Samples upon request.



Place your order early for lining-out stock to avoid disappointment. Remember 50% of purchase price with order reserves stock for later delivery if desired, and pays express charges.

Write for Wholesale Trade List.

SHERWOOD NURSERY CO.

Evergreens

Propagators & Growers

141 S. E. 45th Avenue PORTLAND, ORE.

FRUIT and SHADE TREE SEEDLINGS

Oregon and Washington Grown

**Apple, Pear, Mahaleb, Mazzard,
Myrobalan**

Quince (rooted cuttings)

Chinese Elm Seedlings

Complete Line General Nursery Stock.

Chinese Elm, Transplanted Specimens.

Norway Maple, Lining-out Whips.

Send list of your wants for prices.

New catalogue now ready.

Combination carloads to eastern distributing points.

MILTON NURSERY CO.

A. Miller & Sons, Inc.

Since 1878

Milton, Oregon

Mahonia Aquifolium

(OREGON GRAPE)

Seedlings, 4 to 12 ins., row run, \$20.00 per 1000. Transplants, 2 yrs. in field, nice bushy stock, once cut back, 12 to 15 ins., 30c; 15 to 18 ins., 40c.

SORBUS AUCUPARIA

(EUROPEAN MOUNTAIN ASH) Branched transplanted stock, 4 to 5 ft., 30c; 5 to 6 ft., 40c.

ENGLISH HOLLY

SEEDLINGS

4 to 12 ins., \$10.00 per 1000; \$5.00 per 100. 250 at 1000 rate.

MOUNT VERNON NURSERY

Mount Vernon, Wash.

Field-Grown

Rosebushes

HOWARD ROSE CO.

Hemet, California



Perfection Currants Fruit Tree Seedlings

Let us quote on your needs

DENISON & BLAIR

Troutdale

Oregon

the management of the business was transferred to his children, who moved the concern to Des Moines, Ia., in 1924.

SMALL QUARRELS—BIG WAR.

In his travels about the country in previous years, nurserymen have had the opportunity to hear from John Holmason, owner of the Pacific Coast Nursery, Portland, Ore., about conditions in Europe and his satisfaction in now being a loyal American citizen. Mr. Holmason was born in Austria-Hungary, now a part of Rumania, coming to this country over twenty-five years ago and raising a fine family and building up a good nursery business here. In a recent letter published in some western newspapers, he appealed to Americans to stay out of a war that they did not understand and is not their concern. Some of the incidents which he relates are illuminating. Some paragraphs from his letter follow:

I do not believe that many Americans understand just how it is in Europe. I was born and raised there; I know something about their problems. I still remember some thirty-five to forty years ago when I lived there and used to plow with the oxen beside my neighbor.

I carried a sack on the plow handle, and when I found a rock I put it in the sack and carried it to the end of the field and put it in the oxcart and took the rocks away at the end of the day.

My neighbor, who was plowing next to me on his own land, did not bother to sack the rocks and take them away, but tossed them over on my field.

We had no fences between the fields, and some grasping man would cut a couple of furrows from his neighbor each year until in time the one neighbor would lose a big share of his field to the neighbor who was stealing a little from him each year. Through these practices I saw a good many fights, and sometimes a man was killed.

We also had a river running through the middle of our village. On one side was one nationality of people and on the other side another nationality. There was always trouble between the two sides all the time that I lived there, and when I visited the old country a few years ago they were still quarreling.

This is not only in my own native country, but it is general all over Europe. It is just like a fire that starts from one little match and soon burns over a large area of country, and these petty quarrels that start in a small way finally lead up to a big war.

THE annual meeting of the American Association for the Advancement of Science will be held at Columbus, O., December 27 to 30. The meetings of affiliated organizations at the same time and place will attract scientists in the horticultural field.

A. MCGILL & SON

FAIRVIEW, OREGON

Wholesale Only

GOOD WESTERN-GROWN NURSERY STOCK

Fruit Tree Seedlings

Flowering Ornamental Trees

Shade Trees

Roses

Grown right and packed right.

Combination carloads to Eastern distributing points will save you on freight.

Portland Wholesale Nursery Co.

306 S. E. 12th Avenue

PORTLAND - OREGON

To the Trade Only

A general line of Nursery Stock and Nursery Supplies.

We have had a very favorable growing season so that we can guarantee strong grades in all lines of stock.

OREGON'S BEST SOURCE OF GOOD ROSES

is

PETERSON & DERING, INC.

Wholesale Rose Growers

Scappoose, Oregon

Write for List

ROSEBUSHES

200 Varieties

"Hi-Land Grown—They're Hardy" Send for Trade List

PACIFIC NORTHWEST ROSE NURSERY

Box 261 Wholesale Only Gresham, Ore.

ORENCO NURSERY CO.

Oreneo, Oregon

WHOLESALE GROWERS

Fruit, Shade, Flowering Ornamental Trees, Fruit-tree Seedlings, Roses, Etc.

Very complete line of quality stock

Catalogue sent on request.

New Books and Bulletins

PLANT PROPAGATION.

Propagation in the field of horticulture is well covered in a new book, "Propagation of Horticultural Plants," by Guy W. Adriance, head of the department of horticulture at the Texas Agricultural and Mechanical College, and Fred R. Brison, professor of horticulture at the same institution, the volume being especially complete with reference to fruits, nuts, bulbs and roses. It is generously illustrated with splendid half-tones that show clearly how many of the various processes and methods described are executed.

Greater stress is laid upon the technique of the various methods of propagation than upon specific details of propagating a comprehensive list of individual items, exceptions to this being made in the case of the four groups of plants previously mentioned. With these plants the accepted methods for commercial propagation are given in detail. On the practical side, too, the book assembles recent practices that have been introduced by research workers and commercial propagators.

Perhaps a listing of the chapter headings will indicate best the scope of the book. They are "Seeds," "Flowers and Fruits," "Germination of Seeds," "Forcing Equipment" (propagation structures, soil preparation and sterilization, etc.), "Asexual Propagation," "Bulbs and Related Structures," "Layerage," "Cuttage," "Graftage," "Grafting Waxes, Materials and Tools," "Methods of Grafting," "Methods of Budding," "Propagation of Certain Plants," "Relation of Propagation Practices to Diseases," "Transplanting" and "Growing and Handling of Nursery Stock."

Adding materially to the value of the book are the lists of references at the close of each chapter, thus giving the reader suggestions as to where he can find more detailed information regarding any particular phase of the subject under discussion.

The book, which is 6x9 inches, bound in cloth and made up of 307 pages and an index, sells for \$3. It is a McGraw-Hill publication in the agricultural sciences series, for which Leon J. Cole is consulting editor.

FLORAL MECHANISM.

As an introduction to the study of the structure, development and function of flowers, S. G. Jones, of the University of Glasgow, Glasgow, Scotland, has written the 274-page book "Introduction to Floral Mechanism." The book, which presents the development of the gametic cells in their natural sequences, as well as a brief discussion of the technique and results of plant hybridization, is divided into two parts: 1, development of the flower and 2, the floral structure. Printed in England, this book is distributed in the United States through the Chemical Publishing Co. at \$4 per copy.

The author, in view of the increased prominence given cytology and genetics in botany, has attempted to interweave the main principles of these new sciences into his discussion. The seventy-two line illustrations are presented with the idea that the reader should see more of the development and anatomical aspects of the subjects than are usually supplied in elementary textbooks on this subject. The discussions follow the proper sequences and are written so that no difficulty will be experienced in understanding what is presented. A technical knowledge is not necessary to understand this book.

"EARTH'S GREEN MANTLE."

Translating the scientific knowledge of the botanist into the popular language of the average reader, Dr. Sydney Mangham, professor of botany in University College, Southampton, England, has provided an interesting volume of 322 pages in "Earth's Green Mantle," just published by the Macmillan Co., at \$3.50. From thirty years' research in various aspects of botany and considerable experience as an author, Professor Mangham performs a competent piece of work by really educating the reader in the subject and not seeking merely to interest and entertain. The historical portion of the book will be of interest to many who may be familiar with the material in the later chapters on "the structure of the machine," as the author terms the plant. Indeed, the facts one comes upon here and there through the book make it interesting to any type of reader. The use of plants by man and their importance to him from early eras to the present day are pointed out. The interest and value of the book are increased by two score illustrations in the form of charts, diagrams and pictures.

BULLETINS RECEIVED.

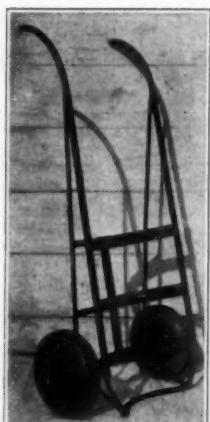
"Pleasure with Plants," circular 32 of the Illinois State Natural History Survey, by Dr. L. R. Tehon, should prove a valuable booklet for anyone



at No Advance in Price

NURSERY HAND TRUCK

**As
Illustrated** **\$27⁵⁰** F. O. B.
Kansas City



THE GARDEN SHOP, INC., 4819 Mission Road, Kansas City, Kansas

CARLOAD LOTS

ELM, American, Moline and Vase, up to 4 ins. All transplants.

MAPLE, Norway, up to 3½ ins. Transplants, extra select, spaced 7x7 ft.

POPLAR, Lombardy, up to 2 ins.

WILLOWS, Thurlow, up to 3 ins.

BARBERRY, Thunbergii, up to 2

to 3 ft.

SPIRÆA, Vanhouttei, up to 5 to

6 ft.

APPLE, 2-year.

CHERRY, 1-year.

PEACH.

All of above items can be supplied in carload lots.

Send for list on many other items.

C. M. HOBBS & SONS, INC.
Bridgeport, Indiana

Largest Nursery in Indiana. Est. 1875.

Apple and Peach Trees In Carload Lots

A long variety list to select from. We also can offer other Fruit Trees in carload lots, as well as Tennessee Natural Peach Seeds.

If you are interested in either Fruit Trees or Peach Seeds, send us your want lists and we will quote attractive prices.

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desiring to establish and maintain a herbarium. The booklet discusses how to name plants, botanical keys, use of analytical keys, equipment for studying plants, preparing herbarium specimens, how to label, arranging the herbarium and many other pertinent subjects.

"Protection of Orchards Against Frost," circular 111 of the California agricultural extension service, Berkeley, written by Warren R. Schoonover, F. A. Brooks and H. E. Walker, is of particular interest to growers of the southern portion of the country. The bulletin discusses the various phases of orchard heating, including the economic conditions under which orchard heating may be justified, atmospheric conditions on frost nights, temperature in relation to frost damage, methods of adding heat to orchards and a thorough discussion of heating equipment and fuels.

"Containers for Fruits and Vegetables," farmers' bulletin 1821, of the United States Department of Agriculture, written by L. C. Carey, marketing specialist, reviews the kinds of containers used in important shipping regions for major fruits and vegetables. The bulletin also contains a digest of federal laws dealing with fruit and vegetable packages.

CAMPANULA SUMMER SKIES.

Originated in Vermont, the charming novelty peach bell, Summer Skies, is rapidly winning recognition and admiration.

Campanula persicifolia Summer Skies bears on its slender stems cup-and-saucer-like blooms that, by their effective appearance of poise, give the flower an airy look. Its color scheme cannot be better described than by the simile the name itself implies—white blooms suffused with azure blue.

This campanula has heavy dark green foliage and grows to a height of two or three feet. It blooms from the last of June to the middle of July, depending entirely upon the season, and its flowers may be used for all kinds of cut flower decorations as they stand up so well.

Campanula Summer Skies is easily grown in the average garden soil with proper drainage. The plants should be divided every second or third year, depending upon soil conditions.

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To Control Field Mice

Thorough Coverage with Poison Bait in Late October Prevents Severe Injury to Trees

Injury to fruit trees and ornamental trees from field mice varies from year to year and according to locality. Where infestation is high, precautions taken in autumn may limit the damage.

Field mice are active and feed largely beneath matted grass or other cover on the surface of the ground. They avoid bare surfaces. Hence, raking or clearing away a space eighteen inches in diameter about a tree is of much help. But if snow or blowing leaves fill the space in winter, the protection is gone.

In limited areas, common wood snap traps are effective. They may be baited by placing pinches of rolled oats on the triggers. The addition of peanut butter to the rolled oats makes a better bait.

In large nurseries or orchards, control by poison bait is preferred. Because animals' tastes vary, reliance should not be placed on one form of bait.

A thorough baiting program should include a grain bait and also a vegetable or fruit bait. Sweet potatoes or carrots, preferably the former, dusted with strychnine should be used as a supplement to a grain bait, such as whole oats or a mixture of common breakfast food rolled oats and wheat to which strychnine and baking soda have been applied.

Baits must be located where mice will come upon them in the course of their normal activities. Look for the runways, place the bait in them and replace the grass so that the covering will be much the same as before. Bait stations are sometimes used, largely for protection from weather. These may be made from lightweight asphalt paper, cut into pieces 9x13 inches and then rolled into tubes about two inches in diameter. The tubes should be baited with a tablespoonful of poisoned grain, placed in runways and lightly covered with grass.

As field mice produce their young largely during the warm seasons of the year, it helps to spread bait during the late summer months. It is important, however, to make a thorough coverage with bait late in October in heavily infested areas.

Formulas for the preparation of baits follow:

Rolled-oat bait—Mix together, dry, one-eighth ounce of powdered strychnine and one-eighth ounce of baking soda. Sift the strychnine-soda mixture over one quart of rolled oats, stirring constantly to ensure an even distribution of the poison through the grain. Thoroughly warm the poisoned rolled oats in an oven and sprinkle over them six tablespoonsfuls of a mixture of three parts of melted beef fat and one part of melted paraffin, mixing until the oats are evenly coated. When the grain is cool it is ready for use. In applying the coating it is important that the beef fat and paraffin mixture be hot and the poisoned rolled oats thoroughly warm; otherwise it will not be possible to obtain an even coating.

Starch-coated grain bait—Mix one tablespoonful of gloss starch in one-half teacup of cold water and stir into three-quarters pint of boiling water to make a thin clear paste. Mix one ounce of powdered strychnine with one ounce baking soda and stir into the starch to a smooth creamy mass free of lumps. Stir in one-quarter pint of heavy corn sirup and one tablespoonful of glycerine. Apply to twelve quarts of wheat.

PINE DISEASE CONTROL.

A method for the control of the disease of pines, which causes the stunting of new growth and the browning of the needles, has been suggested by the United States Department of Agriculture.

In the autumn the infected twigs and needles should be pruned out and destroyed. As soon as the new growth is started in the spring an application of 4-4-50 Bordeaux mixture, with a soap spreader, is given. This is usually followed by a second application when the needles begin to emerge from the leaf sheaths and a third application when the needles are partially grown. During a season when the weather is particularly favorable for infection a fourth application may be necessary. This suggested control method is only suitable for ornamental plantings and is not practical for forest plantings.

OBITUARY.

Mrs. Charles Adams.

Mrs. Charles Adams died at her home, on Atwater terrace, Springfield, Mass., October 3. Mrs. Adams was the wife of Charles Adams, treasurer of the Adams Nursery, Inc., Westfield, Mass. For many years she had been active in church affairs. She had lived her entire married life in Springfield.

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You do not have to use a lot of advertising space to get results. They show a low cost per dollar of sales.

And you do not have to have a lot of stock to offer in order to make space pay. In some cases a single item has been offered and has been sold out with but one insertion. And steady users of its columns often write: "Omit item so-and-so from our advertisement. It's sold out."

Write Today For This:

If you have something to sell at wholesale to the trade, let us give you the benefit of our experience to work out with you a plan (with no obligation to you whatsoever) for the most economical and efficient presentation of your offer.

American Nurseryman
508 S. Dearborn St.
Chicago, Ill.

CATALOGUES RECEIVED.

[In writing for a copy of any of the catalogues reviewed below, please mention that you saw it described in the American Nurseryman.]

Willis Nursery Co., Ottawa, Kan.—Wholesale price list, forty-eight pages and cover, of shrubs, fruit and shade trees, bulbs, perennials, roses, vines and small fruits—"The largest and most complete assortment of stock we have ever offered," reads a cover statement.

Koster Co., Inc., Bridgeton, N. J.—Printed 12-page folder containing wholesale prices on a considerable list of lining-out and specimen stock.

Kelsey Nurseries, St. Joseph, Mo.—Fall trade list, thirty-two pages, of complete assortment of nursery stock.

Bobbink & Atkins, Rutherford, N. J.—Retail folder, illustrated in color, of rhododendrons, taxus, hardy perennials, lilacs and roses.

Fruitland Nurseries, Augusta, Ga.—A 48-page illustrated retail price list of plants for southern gardens grown in their 250 acres. Camellias are a specialty and the cover in color pictures fifteen varieties.

Tom Dodd Nurseries, Semmes, Ala.—Wholesale price list for fall, 1939, and spring, 1940, consists of sixteen pages and cover, in pocket-size form, describing limited list of specialties in azaleas, evergreens, ornamental shrubs and vines.

Richards' Gardens, Fort Collins, Colo.—Mimeographed wholesale price list for autumn, 1939, includes specialties in shrubs, evergreens, trees, irises, peonies, hemerocallis and other perennials. Retail illustrated circular of Holland bulbs is printed.

Hallawell Seed Co., San Francisco, Cal.—Retail fall catalogue of flower seeds, lawn seeds and bulbs contains thirty-two illustrated pages in readable type, with cover illustrations in color.

Couch Bros. Nursery Co., McMinnville, Tenn.—Wholesale trade list of forty-four pages and cover in pocket size, listing fruit trees, ornamental shrubs, forest and shade trees, evergreens and vines.

E. D. Robinson, Wallingford, Conn.—Trade price list of sixty-eight pages and cover in pocket size, besides 4-page folder of lining-out stock, covers rather complete line of stock of five New England nurseries for which he is sales agent.

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912.

Of The American Nurseryman, published twice monthly, at Chicago, Ill., for October 1, 1939.

County of Cook, Ill.

State of Illinois.

Before me, a Notary Public in and for the state and county aforesaid, personally appeared F. R. Kilner, who, having been duly sworn according to law, deposes and says that he is the business manager of The American Nurseryman, and that the following is to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the said publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Post Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers, are:

Name of—
Post office Address—
Publisher, American Nurseryman Publishing Co., 508 Dearborn St., Chicago, Ill.

Editor, F. R. Kilner, 508 S. Dearborn St.

Managing Editor, None.

Business Manager, F. R. Kilner, 508 S. Dearborn St.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock.) American Nurseryman Publishing Co.

3. That the known bondholders, mortgagees, and other security holders, owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities. (If there are none, so state.) None.

F. R. Kilner, Business Manager.

Sworn to and subscribed before me this 28th day of September, 1939.

Nellie E. Ryan, Notary Public.

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CHINESE ELM.

George F. Will, as noted a naturalist as he is nurseryman and seedsman in the northwest, writing in North and South Dakota Horticulture on the Siberian or Chinese elm, a matter of discussion for some years in the great plains region, states: "The general verdict at present, as announced by the government authorities, seems to be that this elm has its chief value in windbreak and shelter belt planting and that the center of its adaptation is the central and southern great plains, from southern Montana and southwestern North Dakota to Texas. It is an established fact that the tree does winter-kill every now and then over much of North Dakota and even more frequently in southern Saskatchewan and Manitoba. Farther north than that it cannot be grown."

"It has been planted in many places as a lawn and boulevard tree. Observation seems to show, however, that it is too brittle and easily damaged by wind, ice, etc., to rank among the trees which should be recommended for that purpose, especially since over most of the state every three or four years there is quite a killing back of the younger growth, which renders it unsightly and makes a lot of extra work to trim it off.

"In farm planting for shelter belt and wood lot this disadvantage is not serious. Even if it kills back badly, as it does sometimes, it may be cut off close to the ground and will spring up rapidly and produce a new tall bushy growth in an almost unbelievably short time.

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Extensive field tests in conjunction with the experiment station, leading nurseries and state highway commissions have proved that coating various kinds of trees and shrubs before or at the time of transplanting provides marked protection against the many hazards that have previously beset the horticulturist. Winter injury on established evergreens is reduced by an application of Dowax during early October.

Dowax is supplied in concentrated form and must be diluted with water. Dilutions of Dowax vary with the purpose for which it is to be used. For average work the dilution is three gallons of water to one gallon of Dowax. This concentration is used for treating dormant, deciduous and evergreen trees, shrubs and Christmas trees, and prevention of winter wind burn, etc.

Large-scale users of Dowax employing high-pressure equipment will find one part Dowax to three or four parts water satisfactory. The important point is to secure complete coverage with a film of sufficient thickness to provide the desired protection. This is usually accomplished by spraying thoroughly until the emulsion begins to run off. This produces the heaviest possible film and least loss of material.

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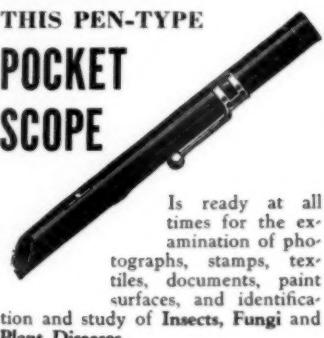
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